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THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

EDITED BY

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VOLUME I.

LOUISVILLE, KY:

PRINTED AND PUBLISHED BY J. F. BRENNAN,

Cor. of Market & First Streets.

1854.

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The Western Journal

OF

MEDICINE AND SURGERY.

JANUARY, 1854. NEW SERIES. VOL. I.—No. 1.

ART. I.—THE MISSION OF THE PROFESSION OF MEDICINE.

An Introductory Address, delivered before the Faculty and Students of the Medical Department of the University of Louisville, at the opening of the Session of 1853–'54. *By* BENJAMIN R. PALMER, *M. D., Professor of Descriptive and Surgical Anatomy.*

A VERY general custom prevails among the American Schools of Medicine, by which, one lecture at least, somewhat formal and general in its character, is required as an introduction to the didactic courses which are to follow in the several departments of instruction. I confess that I can see no good reason for the establishment of this custom, neither can I appreciate the beneficial results which are supposed to require its continuance. Judging from my own observation, I am inclined to the opinion, that the occupancy of a professorial chair involves few duties more irksome to the incumbent than that which requires him, in his turn, to write and deliver "The Introductory." At least I am quite sure that the idea is always exceedingly disagreeable to me, and when, a few months since, the Dean of our Faculty advised me that I was expected to prepare for this occasion, I felt strongly inclined to ask for a release from so unpleasant a labor. But being persuaded that the respite would be but temporary, and that at length

however ungraciously met, the duty must be encountered; I concluded to submit to the task imposed upon me, and appear before you this evening as the herald of the opening session of the University.

Then arose the somewhat anxious inquiry as to what should be the subject of the lecture. I knew that the whole field of topics suitable for such occasions had been thoroughly exhausted—that the ground had been cropped so often, that without a more fertilizing brain than mine, a very limited production must unavoidably be the result. It seems to me, that of all subjects which can be found to try the patience of a cultivated audience at this day, none will be as likely to prove threadbare, as a medical introductory.

With these deprecatory remarks, allow me to ask your indulgence for a short time, while I offer a few reflections upon what I shall term the *Mission of the Profession of Medicine*, in other words, the results which legitimate medicine may be expected finally to accomplish, together with some considerations upon the mode in which they are to be attained.

Our profession has often been called a *conjectural art.* It has been frequently regarded as a collection of baseless hypothesis resulting from the unfounded speculations of misdirected genius, eliciting for a time the admiration of its disciples, and governing their conduct, to be succeeded in turn by new fancies equally chimerical, and equally transient.

That some foundation exists, or, I may better say, has existed for such calumny, cannot be denied. But the charge belongs more appropriately to the early days of medicine than to the present. Imperfections and errors have characterized all science and all art. They are the necessary attendants of progress. Even in the most exact of the sciences, the day has not yet arrived when no errors remain to be corrected, and no "false facts" to be exploded. It seems to me that there is no law of our nature more benign in its institution, than that which has created the necessity of laborious and untiring research in the great business of investigating the sublime principles which regulate the operations of matter and of mind, and their application in rendering them subservient to the highest interests of the race.

We are told in Holy Writ that "In the beginning God created the heaven and the earth, and the earth was without form and void, and darkness was upon the face of the deep." We know that certain great laws were instituted by the Creator for the government of this work of his hand, that these laws are fixed and unchanging—that after the lapse of ages they continue still their unvarying course. We know, too, that the crowning work of creation consisted in the production of man, with his elevation above all other beings of earth, with his intellectual and moral endowments constituting him, under God, their ruler and their master.

When the work of creation was finished, and man and brute, and tree and inanimate nature were left to fulfil the objects for which they were created, they were consigned by an infinite wisdom to the government of these immutable laws of their being.—There was no science then—no art—but the materials from which they were to be constructed existed then, as now, hidden, locked up, but not for ever, not beyond the grasp of that grandest and most mysterious of all the Creator's works—the human intellect. The sun shone then, as now. The silvery queen of night wheeled in her orbit, encircled by the glittering blazonry of heaven in the same unchanging round. The oak of the forest, springing from its germ, reared its massive branches toward the sun, and after defying the storms of centuries, withered, decayed, and was resolved into the elements from which it sprung. The rivers pursued their ceaseless courses to the sea. Tides ebbed and flowed as yesterday. Man and beast were as perfect in their structure as today. These organs so passing strange and wondrously beautiful in their complexity, were perfected then. The heart beats no truer now, the muscles obey the will no better now than they did in the forms of our first parents, when, sinless, they wandered amid the groves of Paradise, worshipping God in their unskilled but boundless admiration of his works, and wondering what manner of beings they were.

Philosophers have usually recognized a division of the laws of nature into moral and physical. The first has exclusive application to man as a moral and intelligent being. Under the second head may be grouped all that immense array of natural laws gov-

erning all created matter, beginning with man's animal nature and extending down to the minutest particle of the inorganic world. The knowledge of their nature, their relations, dependencies and operations constitutes human science, The direct application of this knowledge to the practical business of life becomes art. An acquaintance with the first, teaches man his own moral and intellectual nature, his relations to his Maker and his fellow-men, his duties in this life and his existence in that which is to come.

All schemes of religion, all forms of government, all the social and domestic relations, whether in communities or in the narrower circle of family, are but the practical workings of the moral laws of our nature. When rightly understood and obeyed, virtue and happiness must be the necessary result; when perverted or neglected, vice and misery are the inevitable consequences. On the other hand, the physical laws, lying as they do at the foundation of all that is commonly termed natural science, which in turn constitutes the basis upon which all art is erected, are of an entirely different nature. While they have no immediate connection with the intellect, with the spiritual part of man, they are intimately concerned in the development, in the enlargement of the mind, and in the promotion of human happiness.

If we look at the early history of our race, commencing with that morning when man was ushered into being in the image of his God, it seems to me that there is no more striking fact to be observed than the great one connected with his early teaching.—Infinite wisdom saw that man required an instructor in those laws connected with his moral nature, that he could not by his own unaided powers determine his relations and responsibilities to his Maker, or solve the mysterious problem of futurity, and so we find from the dawn of creation down through the course of ages, the direct revelation of the will of Heaven, teaching us the great laws which govern our moral being, pointing out clearly our accountability to God and our duty to our fellow-men, urging us to good and warning us of evil, and finally assuring us with the comforting promise that our intellect, our soul is to live forever. Wise and good men assure us that this revelation contains all the teaching necessary to guide us to a life of virtue here, and one of happiness hereafter. We confidently accept this assurance, and devoutly rely upon this hope.

This teaching was explicit, for its importance and urgency admitted of no alternative. But no such instruction was vouchsafed in relation to the physical laws of nature; their discovery, their development and application to the purposes of life were left to the unaided intellect of man. It was evidently one great end designed by the Creator when he constituted his last work and gifted him with intelligence, that his marvelous powers of mind should be devoted to the immense task of discovering these hidden laws, that nature should be interrogated until she yielded her secrets as the reward of his toil; and for this wise and beneficent purpose man is bound to evince the deepest gratitude. It has not only served in the highest degree to develop the character, the energies and capacities of the race, but has been productive of immeasurable happiness.

It is far more interesting to the scholar to trace the slow but gradual progress of scientific discovery, to watch the almost imperceptible changes, at first so slight as scarcely to leave their impress, than to dwell upon those disjointed fragments of history which still exist as the evidences of human crimes and human passions. We are not surprised at the fact that during the early periods of the world, the progress of all scientific discovery was exceedingly slow. The reasons are too obvious to require notice. In the language of a distinguished member of our own profession, used in another connection: "It was light struggling with suffocating darkness, not for days, or weeks, or years, but for centuries upon centuries before the day-spring became manifest."

It seems to me not a chimerical or unreasonable opinion, that in the fullness of time all science and all art will become perfect, that the object of this world's creation will not be fulfilled, until not only the whole earth has become subject to the influences of civilization and religion, but all the laws of nature both moral and physical, in all their relations and dependencies shall have become clearly understood and applied to the great purpose of promoting the highest happiness of man. Is there not abundant reason for such an opinion? Does not the past history, and especially the present condition of the world warrant this expectation? How often are we startled, when some new secret of nature, hidden from the beginning, is stripped of the darkness which had enveloped it

for ages, and takes its place among the acknowledged facts of science, exercising its expanding influence upon the practical business of life. Experience has already taught us not to wonder at discoveries which once, if predicted, would have excited the ridicule of all intelligent men. But a single century ago, men gazed at the lightning's flash and listened to the fearful crash of the thunderbolt in silent awe, regarding them only as magnificent but terrible illustrations of the power of God, and not unfrequently the sudden ministers of his wrath, little dreaming that the dread element would be deprived of its power for evil and rendered subservient to the highest interests of the race. The student of nature is constantly receiving the most gratifying reward for his toil and labor in exploring her secrets, and cannot fail to hope and believe that the long future will finish and perfect the work so auspiciously begun. When we read the pages of this world's history, which the geologist has opened for our admiration, during that long period of chaos and of night which lies behind the creation of man, and follow him step by step through the successive epochs during which the earth was preparing for its human inhabitants, and trace the unmistakeable evidence by which he demonstrates the almost countless ages which preceded the completion of the work, may we not anticipate that all the laws of nature and all dependent science will finally yield to human intellect and human labor?

I cannot resist the conviction, that inasmuch as long ages were required in the perfect preparation of the earth for its intelligent tenants, so in the long ages which are to follow the creation, the design of Omnipotence requires that all the laws pertaining to this work shall be known by his creatures, at least, so far as the knowledge shall tend to their advancement toward perfection and happiness.

In view of these considerations, which are all tending to the main topic of this lecture, the question arises, what may we hope, what may we expect will be finally accomplished by *scientific* medicine, and how is the work to be done? The aim and end of all legitimate labor in advancing our profession, must, of course, be the amelioration, the removal of human suffering resulting from disease or injury, and the prolongation of human existence.

Medicine is strictly a natural science, it is as strictly dependent upon, and governed by the fixed laws of nature as any other science. For its development and progress the discovery of these laws becomes as absolutely necessary. The investigation of their nature, relations, and application constitutes the field of labor which for centuries has been occupied by the true student of medicine, and which now lies open before him. All the laws of life, all the laws which govern living men and living animals, all the intricacies which constitute their mechanism, which produce and regulate their varied movements, giving to each organ its separate place and power, and yet combining them all in one harmonious whole, in fine, all the fixed and determined laws of structure and action, extending through all living beings, embracing every fact however minute and apparently trivial connected with the great problem of life, will, when fully understood, constitute the enduring basis of perfected medicine. The question now arises, can this finished, this perfected state, even of Anatomy and Physiology, be attained? Most certainly do we feel assured that anatomical science is now rapidly reaching its full and perfect stature. What is commonly termed descriptive human anatomy has received but few accessions to its facts for many years. We know but little more of bones and ligaments, muscles and tendons, blood vessels and nerves than our fathers knew. Their descriptions of size, form and relations will probably never be essentially improved. No one studies the attachments of a muscle, the ramifications of an artery, or the distribution of a nerve, with the expectation of becoming wiser than Meckel, or even Winslow was. Some curious and unusual arrangement, some strange and possibly unrecorded anomaly will be the only rewards of his labor. It is to the minuter fields of his science that the anatomist has for years devoted his original inquiries. That wonderful invention of man, that splendid exemplification of the subserviency of science to art, the microscope, enables the student of nature to extend his inquiries to the minuter particles of created matter. By it, he is becoming familiar with objects which once seemed entirely beyond the scope of human observation. It spreads before the eye of the Anatomist with startling distinctness the ultimate composition of every organized structure. Particles of matter whose diameters

are measured by thousandths of an inch, are seen in their form, size and relations with a clearness not to be mistaken. They become established realities as much as the bones and muscles are, and take their place among the facts of science.

And here permit me to make a partial digression, or rather refer to a point which might have been omitted until a later period of the lecture.

There are some students of medicine, men whose minds are thoroughly imbued with the true spirit of progress, who are prone to attach no importance to knowledge which is not directly and immediately available in the exercise of their art. They are disposed to regard the labor expended in these minute investigations misapplied, thinking that but little importance can ever be attached to their results. Whether the human blood disc has a diameter of the three thousandth, or ten thousandth of an inch, or whether it has any determinate diameter is in their view a matter of no consequence.

When the Microscopist informs them that the ultimate muscular fibrilla has a breadth of the nine-thousandth of an inch, they are disposed to regard the fact too trivial for the attention of a grave student of medicine. But even if we cannot now see any direct practical importance coming from this knowledge, are we justified in rejecting it as useless, in regarding it as merely adapted for the exercise of the curiosity of the idle, and not as the legitimate domain of the true votary of medicine? It requires the review of but a few years in the history of medical progress, to establish beyond all cavil the value of such studies. When the animal chemist was teaching our predecessors the composition of the fluids, the practical men of that day regarded his instructions as rather a matter of scientific curioisty and amusement, than as directly connected with their duties in ministering to sick and dying men. They did not see, as they now do, the importance of knowing, that healthy blood contains three parts in the thousand, of the element called fibrin. When the microscopist first called attention to the forms and dimensions of certain crystaline products, occasionally found in another fluid, they regarded them rather as beautiful illustrations of some of the wonderful works which nature performs in her secret laboratories, than as directly connected with the knowledge and treatment of disease.

Innumerable illustrations might be adduced to show how much practical medicine has *already* been indebted to these researches of the minute anatomist; and although our clouded vision may not yet be able to distinguish an importance or see a relation between many of these facts, and the greater and more obvious phenomena with which we are familiar, still let us not reject them as useless; let us not abandon their further investigation as unprofitable. I can not believe that there is any knowledge, however minute connected with the living mechanism, which will not eventually prove to have a direct relation to the practical duties of our profession.

It seems to me that all facts in all science are to be sought and treasured, not merely as curiosities for the amusement of the scholar's hours of leisure, but as having an ultimate bearing in the advancement of our race toward perfection and happiness.

In these minute studies, serious difficulties must be encountered and mistaken opinions must, necessarily, occasionally result from labor carelessly or imperfectly performed. In a comparatively new field, errors are almost unavoidable, but the same spirit of progress which quickens the zeal of the faithful student, and occasionally leads to hasty and erroneous conclusions, will in the end correct and establish them in truth.

It cannot be accounted as visionary, when we express the confident opinion, that at some period (we know not how far distant,) the labors of the microscopist, and the researches of the chemist will complete and perfect this department of our science; when man will know his own physical structure in all its wonderful beauty and complexity. There is no insuperable difficulty here; from the point where we now stand, we can see our way not dimly but clearly to the end.

And now may we expect thus ever, thus completely to comprehend the mysterious workings of this mechanism. Can its physiology, its life be fathomed in all its heights and depths? Can we ever hope to understand all the great laws of its being; those which govern its incipiency, its growth, its maturity, its decay, and its death? These are mightier subjects far than any which engage the anatomist's attention in his labors. They require for their development more untiring labor, more unbounded devotion.

The Physiologist must explore the whole realm of living matter; he cannot otherwise determine the varied laws of his own structure, for he finds analogies and relations distinctly running through the whole range of organized existence. Many of the operations of life and the laws which govern them are the same, whether observed in man, or brute, or tree, or the humble plant which marks the confines of the living world. With this extensive field of research, presenting as it does an almost endless multitude of facts, all important as illustrating his science, may the Physiologist ever hope to complete his work, may he ever hope to discover and establish all the phenomena, all the laws of life, to teach men how they live, and how they die. Life and death are among the most mysterious of the results of creation. The essence of life, as it is sometimes termed, may, and probably will, be always beyond the reach of finite understanding. Life, intellect, soul—these are terms by which we embody our idea of things immaterial, which we only know by their workings, by their results. And yet in this respect they are not alone. We speak of gravity, electricity and magnetism, as something real, something absolute, but the wisest philosopher only points to their results; he knows nothing else of their nature, of their essence. It does not seem to me at all necessary for our purpose that we should be able to comprehend this mysterious essence; it is enough for us to know all its laws and all their phenomena.

We need not fathom the essentiality of mind, but we should know how it uses its material instruments, how it controls their workings, and how they in turn modify and influence it. We shall probably never know why a nerve thread, and that alone, can convey a volition or a sensation, or why a muscular fibre alone is able to contract in obedience to the will. These are facts doubtless beyond our reach; and we cannot see that their knowledge would be important; but we must learn how these organs work, the laws to which they are obedient and the results of their actions.

The object of the Physiologist is not to comprehend what life is, but its laws; or in other words, when we shall have learned the uses of all parts of the living structure, even their minutest atoms, when we shall have found ont their whole history from the

beginning to the end, when we shall have ascertained all the circumstances which influence their actions, and what these actions are, then may the laws of life be regarded as discovered, their phenomena understood, and the science of physiology perfected. And can we doubt that such will be the ultimate reward of scientific labor? Does not the past, and especially the history of the last few years of our professional progress point to this conclusion? If the time admitted, abundant illustrations might be given showing how far we have already succeeded in unlocking what were once regarded as the impenetrable secrets of nature, in lifting the veil which shrouded her mysteries and revealing the wonderful phenomena of life. Although very much remains to be done before this great work shall be accomplished, yet the conclusion is irresistible, that in due time the science of Physiology like that of Anatomy will be complete, that the actions as well as the structure of living beings will be clearly understood.

I have considered somewhat fully these two elementary sciences, and for obvious reasons. The scientific physician always recognizes their fundamental importance, he sees that no true progress in the practical branches of medicine can be made in advance of these, that no reliable and enduring structure can be reared upon an insecure foundation. Doubtless important knowledge of disease and remedies has been attained to, in ignorance of the physiology of the part diseased, but no hope can ever be entertained of perfecting this knowledge, while the least obscurity pertains to any part of its laws of healthy structure and action. A scheme of practical medicine erected upon any other foundation, is in worse condition than the house discribed in Holy Scripture, which was built upon sand, for *that* stood, until storms came, and winds blew while the medical fabric, as has been often and abundantly proved falls of its own weight; it needs no storms for its destruction, for however slight and airy the structure, its insecurity and want of support require no causes from without to produce its ruin.

And now we approach what is perhaps the most difficult part of our subject. What are we to expect, what may we hope, will be the result of all the toil and labor which now so eminently characterize the *true* disciples of practical medicine? what may we hope will be known, in the progress of time, of disease and its

cure? I shall here use the term Practical Medicine with more latitude than is usually assigned to it. I shall consider it as embracing not only diseases and their treatment, but surgery, medicines, obstetrics, in fine all the practical branches of our science.

The question arises, what are we to regard as perfection in practical medicine? What progress must be made before this condition can be attained? Doubtless the wild dreams of the Alchemists have passed away forever. The visionary enthusiasts of the middle ages who spent long years in idle and fruitless labor for the discovery of the *elixir vitæ*, a something capable of reproducing and continuing a period of perpetual youth, were never enrolled among the true disciples of medicine. They were the empirics of their day, and like others of their class, have passed away and left few traces of their existence save the record of their folly.

While this earth is inhabited by men, they must obey that great law of their being which "fortells the ending of mortality." Unchanging and unchangeable is the memorable denunciation, "dust thou art, and unto dust shalt thou return." The perfection of practical medicine does not necessarily imply that all diseases should be deprived of their fatality, and human life in all cases protracted to its extremest limit. It only requires that *all* the laws of *all* diseases should be fully known, and that the nature and action of all remedial agents should be fully understood. It cannot be doubted, that natural science comprises within its broad domain all the facts pertaining to the diseased as well as to the healthy organs, that *their* changed structure and perverted actions obey laws just as fixed and unerring as those simpler and more easily understood, which make our physiology. There can be no doubt that with all the circumstances alike, antecedent and surrounding, the same disease would always present the same peculiarities. In other words, we believe that every disease has its fixed laws, that the varieties which are observed, are dependent upon conditions either pertaining to the patient himself or to the cause which produced it, or those which may modify its course and action, and it may be fairly inferred that these causes, these circumstances, are uniform in their result.

And again, we inquire, can all the laws of disease be compassed? Are all the facts constituting this immense field of science

within reach of the human intellect? It seems to me immeasurably the grandest and broadest work which God has assigned to the children of men. It has a higher, a nobler aim and end than any other human science, and the herculean task of investigating and determining its facts is proportionate to the immensity of the result.

Let us take a brief view of the work to be done, and then we can better comprehend the amount of labor before us, and better judge of the probable issue. In investigating any disease, we find the range of inquiry exceedingly broad. A great multitude of facts must be observed with most scrupulous care; the observations must be repeated again and again, that all doubt of their accuracy, be removed. These facts must be arranged, compared and analyzed, so that from them, at length the laws of the disease may be deduced. They must also be repeated under every variety of circumstances, which can exert any influence upon the results; in the different sexes, different seasons of the year, and in differregions of the earth. Regard, too, must be had to the different races of men, and to peculiarities in the same race. So too the age, occupation, and habits of life, all require the student's investigation. These, and other circumstances which might be adduced would convey some idea of the conditions which bind all investigations which have for their object the determination of the laws of disease.

Prominent among these laws, prominent for their vast importance, as well as for the difficulties which in many cases surround and obstruct our passage, are the causes of disease. We already possess a large amount of knowledge in this important division of our science. In not a few diseases, perhaps all that is valuable, all that ever will be known, is fully understood; while in others, a partial but still useful degree of knowledge requires a vast amount of labor for its full development. In certain diseases of a purely contagious character, our acquaintance with the cause is definite. We know that during their progress a poison is generated which reproduces a similar disease in persons subjected to its influence. This poison will produce no other form of disease, nor can the malady be produced by any other cause. Small-pox is never known to originate except from exposure to its peculiar

virus. On the other hand, certain diseases termed epidemic, are dependent upon causes but imperfectly understood.

We do not yet fully know, why Asiatic cholera should expend its desolating influence upon one neighborhood, sweeping from the earth in a few short weeks, its thousands of victims, while in the immediate vicinity, the destroyer passes by, leaving cities and villages comparatively unharmed. Yet even here, some useful knowledge has been obtained, a clew has been reached, we would fain believe, by which the mystery will at length be unravelled. During the early history of your own beautiful valley, when the foot of the white man first pressed the banks of the "lonely Ohio," when the axe of the settler and the rifle of the hunter gave evidence of the progress of our untiring, unresistable race, in its resistless march across a hemisphere, the pioneer found amid the luxuriant forests of these fertile plains, a foe more deadly than the red man, more difficult to be encountered than the wildest beast of the unbroken wilderness. Pestilence walked in darkness and wasted at the noon-day. Nearly an entire generation bowed to its influence and was swept away. With the advance of civilization, with the peopling of the earth's surface and its consequent cultivation, the pestilence has slowly, but steadily receded, and now the stalwart forms of hardy men, and the glowing cheeks of beauteous women, tell full surely that the genius of health inhabits your borders. And what produced this fearful desolation? Why did the early settlers of almost all parts of our broad land become its victims? Physicians term the cause *malaria*, and why? The breeze of the morning was as fragrant and balmy, the zephyr of evening was as cool and refreshing to the brow of the weary laborer as now. The chemist finds no difference in the composition of the atmosphere, whether he studies it amid the eternal glaciers of the frozen Alps, or beneath the burning sun of the tropics, or amid those pestilential marshes whose noxious exhalations almost depopulate the fairest provinces of the earth.

We have thus far interrogated him in vain for a solution of the enigma. Our knowledge extends only to some of the conditions which surround this dread cause of mortality. We feel that we know whence it originates and how it is removed. That it is a something, too subtle for the chemist's present means of reach,

emanating from the earth and mingling with the air we breathe, we are persuaded; but what it is, future discoverers must teach.

I have thus briefly referred to what may be considered the two extremes of the known and the unknown causes of disease. Between these, the subject might be extended almost illimitably, but it is unnecessary. Next to disease itself, its nature, its progress, its termination, in all its various forms, what an immense amount of knowledge is already ours, and what a vast field of study is yet before us. There is no malady incident to civilized man with which we are not to a considerable extent familiar, and there is probably none which does not require more labor for its perfect comprehension. We must know every change produced from the beginning of every disease to its end. Familiarity with the slightest alteration in the composition of every fluid, in the form, size and structure of every atom of the solid constituents is requisite, before our knowledge of the nature of any disease can be considered perfect, and this too under every variety of circumstances which ever occur to influence its course and action.

With this knowledge, coupled with an acquaintance with the outward symptoms, the physician will read with his patient before him, as reflected in a mirror, all the silent workings within; he will be able day by day to anticipate the changes of the morrow, and apply with a purpose *never* conjectural, all the resources of his art. With a full knowledge of all the laws of all diseases, he will of course be able to determine whether any given malady is curable, or whether from its nature it must defy all skill. We acknowledge with melancholy sadness, that amid the long catalogue of diseases, some yet exist, which baffle all our efforts for their cure. Again and again we struggle manfully but fruitlessly for the mastery, and when now and then a solitary victim is rescued from the destroying angel's grasp, we almost wonder at the unusual occurrence. How hopelessly does the physician stand and gaze upon the poor wretch writhing under the agonizing tortures of hydrophobia, and how powerless does he feel; how little comfort can he give to the victim of cancer. He knows that silently, perhaps slowly, but almost surely it is sapping the foundations of life, he knows that the living current is poisoned, and is polluting and destroying the whole fabric. He reads its progress in

the impaired strength, the wasted form, the ghastly face and sunken eye, and can he minister no aid? The surgeon proposes its removal, it is his only hope. It probably will prolong existence, and for a time assuage its torments; it may cure, but of that he can speak but doubtingly, and still it is the only hope. Thus it is now, but when knowledge here shall be complete, it may prove that its law is death, or it may chance, that when all its causes are crearly understood, when science shall have fathomed the slightest changes which mark its beginning, that art may be able to furnish its preventive or its cure, and another triumph be added to the long list, which now adorns the pages of our profession.

When we inquire into the probabilities of this final perfection in the knowledge of disease, when we ask whether this vast result can ever be attained, it is fitting and right that we examine the past and the present condition of our science; for of the future we may judge of the past. Have we already made such advances as to justify these expectations? A single illustration must suffice for this purpose, and I shall take a disease of great frequency and great importance, inflammation of the lungs, popularly termed lung fever, a disease which has long been recognized and named. Half a century ago, and physicians knew merely that a process, termed inflammation, was liable to attack these important organs. They could sometimes, but by no means uniformly, distinguish it from diseases of neighboring parts. They had a general but vague idea of its progress. They dreaded its tendencies to fatality, and when such an event occurred, they supposed that some kind of disorganization had been the cause. And how is it now? The skilled physician recognizes the presence of the disease in its very beginning. He always distinguishes it clearly from all other affections, and ascertains at the onset the exact point of the organ invaded. However small the inflamed part may be, it does not escape his notice. Day by day he watches its progress, and if it advance, he can mark the dividing line between the diseased and healthy parts. As it changes its character he marks it with unerring certainty, and can even anticipate the change. He knows, too, the workings of the disease within; the alteration in the composition of the blood; the different manner in which it pursues its

busy round. He knows how the solid structures are changed, even to their microscopic atoms. He sees, as in a glass, the blood vessels pouring out a portion of their contents, he sees these mingled with, and blocking up the delicate tissues called air cells, thus hurrying the breathing, and rendering it imperfect; he can comprehend the purple hue of the face, the delirious wandering of the intellect, warning him of danger, not because the brain is involved in the disease, but because the laboring lungs are no longer able to fit the blood for its circulation through the organ of the mind. In short it would seem as though there could be comparatively but little more in the nature of this disease for the labor of future discoverers. Nor does it stand in this respect alone; a long list could be added, in which the progress of investigation has carried us far, very far, as we believe, toward the end, although in no disease, as it seems to me, can we regard our knowledge yet as complete.

The last half century has been eminently characterized by the rapid progress of all science and all art. The world is familiar with the wondrous changes which have resulted from this progress. Almost all men recognize and appreciate the immeasurable amount of comfort and happiness for which they are indebted to the unceasing toil of the devoted student of nature. We believe we know that no science has been characterized by more untiring labor than ours, we are confident that in none has greater progress been made. The question will naturally be asked, has this progress in the knowledge of the laws of life, of health, of disease and death, been attended with a corresponding advance in the great and ultimate object towards which all our labors tend?—Has this progress enlarged our means for the prevention and cure of disease? Has it enabled us more successfully to guard against its approach, to resist its attacks, and avert its fatal termination? Most abundant and satisfactory answers can be given to these questions. Examine the statictics of hospitals, and they will show you a steady and marked decrease in their tables of mortality.—Look at the statistics of scientific medicine every where, and you will find them filled with the triumphs of our art. If the time permitted and the occasion required it, we could point you to many diseases once regarded as nearly hopelessly fatal, which

now yield readily to our skill. The Surgeon could tell you of limbs now saved, where but a few years ago their removal was considered unavoidable. He could show you the subjects of deformities which once followed their victims from the cradle to the grave, now restored by his skill to the perfect form of perfect men. Sight to the blind, strength to the lame and impotent, life to the once almost hopelessly diseased, are the rewards of his labors.—Equally important practical results have attended the researches in another branch of our profession. All reports, all statistical records show conclusively, that great advances have been made during the last half century, in the prevention of disease, in the relief of its pangs and in the prolongation of life; and for these inestimable results the world is indebted to our science.

In view of what has been done, and especially in view of the wonderful advance of medicine during the last fifty years, and of the untiring zeal of the host of true disciples who now lead the van of progress and discovery, it seems to me not unreasonable to believe, that the day will come, when all the laws of disease will be known, it seems to me that the past and the present both point clearly to this result, that in our science, it is the design or Providence that all the laws upon which it is based shall eventually be known and understood in all their relations, at least so far as their knowledge will conduce to human happiness.

The road to this great end has already been sufficiently indicated. Nature must be observed and interrogated until her hidden secrets are brought to light. Our studies are conducted in the same manner as in the other natural sciences. There is no mystery in our labors; careful observation and cautious induction comprise it all.

The tendency to speculation is rapidly vanishing, and the danger of wandering from the right path has nearly passed away.—All that is valuable in our knowledge, all that has stood the test of time, or will endure the ordeal of future investigations, is the outgrowth of the labors of the disciples of legitimate medicine.—It is only from the *regular* priesthood who minister at her altars, that our science derives lessons of wisdom and truth. All the fanciful speculations, all the wild schemes for the cure of disease which have emanated from the brains of foolish empirics have

proved as baseless and as transient as the visions of the night.—One follows another, and for a time amuses the credulous: and then passes away never to be revived. So hath it always been, so must it always be, from the very nature of things it can never be otherwise. The empiric knows naught of nature's laws and cares naught, he never dreamed of the scholar's love of knowledge for the sake of knowledge. The "*sæva fames auri*," is the only law, the only principle which incites him to labor. But as his life is without profit to science, it is pleasing to feel that it does no evil. It can create but a passing eddy, a ripple upon the surface which is soon swept away and lost forever, in the rapid progress of the broad and deep current of scientific medicine.

Art. II.—CASES OF CHRONIC PLEURISY AT THE LOUISVILLE MARINE HOSPITAL.

BY AUSTIN FLINT, M. D., PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE UNIVERSITY OF LOUISVILLE.

In a series of interesting and instructive cases of disease which have been presented at the Louisville Marine Hospital during the past few weeks of the present term of my service in that institution, are included several cases of *Chronic Pleurisy*. I have selected these as the subjects of this report for the following reasons:

1st. The affection is comparatively rare, but yet sufficiently frequent in its occurrence for instances occasionally to fall under the notice of every practitioner of medicine.

2nd. It is a remarkably latent affection, so far as concerns the symptomatic events usually distinguished as *vital* or *rational*, its existence, on the other hand, being determined with great ease and positiveness by physical signs. It is therefore very often overlooked, and confounded with other affections.

3d. Although as yet inadequately studied by means of analytical investigations, enough has been thereby developed, of late, to show that the notions pertaining to the pathology, progress and treatment of the disease, which are commonly entertained, and inculcated in standard treatises, are, in some important particulars, erroneous.

4th. As a reason wholly personal, the writer would add, that having a short time since analyzed a collection of the cases observed and recorded by himself,* he has on that account felt greater interest in the examination of fresh clinical illustrations of the affection.

CASE 1.—*Chronic, succeeding acute Pleurisy. Improvement sufficient to return to labor after five months. Relapse after continuing at labor five months. Case coming under observation fifteen months from date of acute attack. Renewed inflammation, a second time, while progressing favorably, with superadded bronchitis. Case still under observation.*

WM. THOMPSON, aged 32, groom, unmarried, Irish, father lately living and well, and supposes his mother also to be alive. Has six sisters and one brother living, and has lost one sister from the effects of an injury. Oct. 10, 1853.

Previous History.—Prior to about 15 months ago he enjoyed excellent health. Attacked suddenly at night, after exposure on the same night to cold and wet, with sharp, lancinating pain in the right side, felt especially with the act of inspiration. He was confined to the bed about three months, was bled twice copiously, blistered and salivated. In about five months he had recovered sufficiently to return to labor, and continued to labor for five months, during which period he says that he enjoyed excellent health. At the end of this five months, about five months prior to this date, (Oct. 10,) he was attacked with chills and treated for intermittent fever. Was confined to the bed for about three weeks. Had no pain in the chest at that time, and has had none there since. The chills were repeated every alternate day for a week.

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* Essay on Chronic Pleurisy, based on the analysis of 47 cases. By AUSTIN FLINT, M. D. 8vo., pp. 56.

He has not felt able to labor since, and entered the hospital a month ago.

Present Symptoms.—Up and dressed, able to walk about and render some assistance in the ward. Aspect pallid; prolabia exsanguine; appetite tolerable; perspires freely at night, but this has been the case for a short time only; bowels regular; urine tolerably abundant under the use of diuretics which he has taken for some time; slight cough, but no expectoration; skin cool; hands somewhat congested; pulse exceedingly small and feeble, ninety-six per minute; tongue pallid and thinly coated; respirations twenty-four.

PHYSICAL SIGNS.

Inspection.—Right shoulder depressed, and upper part of right side flattened. Intercostal depressions visible at the lower lateral portion of right side. Slight breathing movement on this side, in this respect contrasting strongly with the left side. A considerable lateral curvature of spine, the convexity looking to the left side.

Mensuration.—Right side, seventeen and one-eighth inches; left side, sixteen and seven-eighths, (spinal curvature to be borne in mind.)

Percussion.—Left side yields very clear vesicular resonance.—Right side, above the third rib, gives a feeble resonance, tympanitic in quality. Below the third rib, flatness, except on strong percussion, when an obscure tympanitic sound is developed.

Palpation.—Vocal fremitus at the summit of the chest, behind, on the right side, and none on left side in corresponding situation. In front, same situation, strong fremitus on right, and feeble on left side. Over middle and lower thirds, fremitus on left, and none on right side.

Succussion.—On grasping the shoulder of each side and throwing them backward, the sternal extremity of the right clavicle is observed to be moveable, contrasting in this respect strikingly with that of the left side.

Auscultation.—At summit of chest, on right side, shortened inspiration, a brief interval, and a prolonged expiration, the latter more intense and higher in pitch than the sound of inspiration.—On left side, marked, exaggerated, vesicular respiration. A full

distant, respiratory sound appreciable over middle third of right side, in front. Behind, over scapula, very feeble respiration, too feeble to note character, and no respiratory sound below the scapula. No râles on either side. Vocal resonance below spine of scapula, about equal on both sides, but much more marked on the right side above the spinous ridge. In front, present on both sides, but much more marked on the right side; apex impulse of the heart not discoverable.

The previous history in this case, shows that the patient was attacked with acute pleurisy fifteen months before the foregoing record was made. The chronic affection, in this instance, succeeded the acute, which is not the rule, although it is so stated in systematic works.* The patient, from his account, was treated with active remedies, which, however, did not prevent his being confined to the bed for three months, and rendered unable to labor for five months. And, now, what was the condition of the chest during the following five months that he was able to labor, and considered himself in good health? Considerable progress had doubtless been made in the resorption of the liquid effusion which the chest must previously have contained, but it is probable that the pleural sac still contained liquid. It is not surprising that, under such circumstances, the patient should suppose the recovery to be complete, for cases are met with, in which the chest is filled on one side, and not enough inconvenience experienced to prevent laborious occupations.† In all cases that recover, the evidences of re-established health are such that patients deem themselves entirely well, long before physical exploration determines the restorative processes of absorption and adhesion to have been completed. Always many months, and sometimes even years elapse before recovery from the local affection is fully accomplished. During this time, without due precaution, the patient is constantly in danger of renewed inflammatory action. Imprudence in returning to labor, and, in all probability, in other respects, led to this result in the present instance; and the patient, with a large re-accumulation of liquid effusion within the chest,

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* *Vide* Essay by writer,

† *Vide* Essay by writer.

at the date of the foregoing record, was apparently a second time progressing slowly toward recovery.

In this case it is to be remarked, that, so far as the rational, or vital symptoms are concerned, the evidences of chronic pleurisy were very slight. Putting aside the acute, lancinating pain at the date of the first attack, fifteen months before, there were few symptoms, past or present, denoting that the chest was the seat of a grave affection, and none characteristic of the particular affection under which the patient was laboring. There had been no pain since the last attack, five months before entering the hospital; the cough was slight; the respiration but little increased in frequency, and, in fact, the case had been regarded, before his admission, as solely one of intermittent fever. Without the advantage of physical exploration, a positive diagnosis would have been almost impossible. A correct diagnosis is seldom made in these cases by practitioners who do not avail themselves of the assistance afforded by physical exploration. The disease is called consumption, intermittent fever, dyspepsia, general debility, and often goes by the title of that ideal affection *liver complaint.*

To determine the character of the disease with the aid of physical signs is one of the easiest problems in physical diagnosis. In the great majority of instances the signs, already given as present in this case, are found in combination, viz:—enlargement of the side affected, at first, determined by inspection and measurement, and contraction afterward; diminished breathing movement of the side affected, approaching sometimes to immobility, and a corresponding increase of mobility on the unaffected side; flatness of the percussion sound from the base of the chest, extending upward in proportion to the quantity of liquid, and diminished resonance above the level of the liquid; the bronchial respiration at the summit of the chest over the site of the condensed lung, with, frequently, vocal resonance and fremitus due to the condensation, and on the unaffected side, if the lung be free from disease, clearness of vesicular resonance on percussion, and an exaggerated vesicular respiration.

Other signs of minor importance will be noticed in connection with the other cases.

With several signs thus associated, all of which are appreciated

without difficulty, a failure to recognize a well marked case of chronic pleurisy can hardly occur to one tolerably conversant with the principles and practice of physical exploration.

Dec. 6.—This patient continued to report progressive improvement up to about a week prior to this date. Since the former record, Oct. 10, he has been up and dressed daily, and has acted as an assistant to the ward attendant, performing considerable labor. During this interval his cough was slight, with little or no expectoration. About a week ago, he was attacked, in the night time, with severe cough, and in a day or two began to expectorate. The expectoration was at first small, and gradually became abundant. From the commencement of this new attack he has had pain in the chest, which he refers to the lower half of the sternum, extending laterally in both directions. Up to this attack his appetite had been good, but he has since had little desire for food. Is thirsty, especially at night. Bowels open daily, or on alternate days. He sweats profusely every night. Dr. Dickinson, the resident physician, has observed febrile movement for a week past, especially at evening. Tongue, on the morning of this date, moist and clean. Skin cool and mellow. Pulse ninety-two and soft.

PHYSICAL SIGNS.

Inspection.—Right side does not present marked contraction any where. The two sides appear to be not far from equal in volume. The right side is nearly immoveable, while the left presents increased expansive and elevation movements in respiration. The intercostal spaces on the left side, at the inferior lateral portion of the chest, are depressed, and no depressions are visible on the right side.

Percussion.—Over left side, at superior anterior portion, very clear vesicular resonance. The right side is extremely tender, so that moderately forcible percussion gives great pain. Flatness exists universally in front and behind, save in infra clavicular space, there is a distinct but faint tympanitic resonance.

Auscultation.—Notably exaggerated vesicular respiration on the left side, the inspiration long and expansive, with a sound of expiration short and lower in pitch than that of inspiration. On

right side, in front and behind, no distinctly appreciable sound of respiration. Heart sounds very audible. Vocal resonance on the left side, marked in front and behind, more especially in the infra clavicular region. None on right side, save in the infra clavicular and scapular regions, and here relatively feeble. Vocal fremitus on left side, marked everywhere, especially posteriorly below scapula. On right side entirely absent, save in infra clavicular region, and here more marked than in corresponding region of left side. Heart impulse not felt, but visible between fourth and fifth ribs, directly beneath nipple.

In the interval between the dates of the records above quoted, the patient was apparently progressing favorably. He was gaining in strength, improving in aspect, and, in fact, considered himself to be in tolerable health. During this period he had no active treatment directed specially to the chest affection. It was intentional, and not from neglect, that this course was pursued, the observation of previous cases having satisfied the writer that after the measures designed to promote resorption of the liquid effusion, viz:—mercurialization, diuretics, hydragogue cathartics, vesication, etc., have been continued for a short period, a few weeks usually, they have accomplished all that is to be expected from them, and to push them farther tends to retard, if not to prevent recovery. It is generally practicable, by more or less of the measures just mentioned, employed in combination, or succession, to produce, within a short space of time, a marked diminution in the quantity of the effused liquid; but having reached a certain point, this diminution ceases to go on with rapidity, and the patient thereafter suffers from the general effects of the remedies, while the great object for which they are employed is no longer attained. Before coming under my charge the patient had received treatment directed to the chest affection, having been a month in the hospital, and the plan now adopted was to endeavor to improve the constitutional vigor. For this end tonic remedies were directed, a little porter and nutritious diet. In several instances I have witnessed the steady progress of the disease toward recovery under this plan of management, after all special efforts, by way of medication, to hasten the removal of the liquid effusion were abandon-

ed. These efforts, under judicious limitations, are useful. They will generally effect a certain amount of utility, the amount varying in different cases; and having reached this limit they are no longer useful, but, if persisted in, will do harm. This seems to me a highly important practical point in the management of chronic pleurisy. How is it to be determined when they have ceased to be useful? Mainly by the evidence afforded by physical exploration. When the physical signs show that appreciable progress in the work of resorption no longer follows the operation of the remedies, they are to be abandoned, and the leading indication for treatment then is to develop and sustain the power of the constitution, and thus indirectly, but still efficiently, promote the processes of restoration. This is stated as the result of clinical observation. If we were to seek an explanation, it is to be found, probably, in the fact that, the morbid contents of the pleural sac, consisting of febrin and turbid serum, the serous or watery portion alone is made to enter the vessels by endosmosis as the result of diminishing the specific gravity of the blood by diuretics, cathartics, blisters, etc. The reduction in the quantity of the liquid effusion effected by these remedies ceases, so soon as the resorption raises the specific gravity of the effusion which remains to a point too high for the operation of the law of endosmosis. After this point is reached, the liquid is taken up very slowly, as the febrin becomes separated, solidified and organized.

At the last date, the patient was evidently suffering from a renewal of pleuritic inflammation, accompanied by a bronchitis.—The physical signs, compared with those recorded Oct. 10, show an increase in the liquid contents of the chest. There was ground for the suspicion that a purulent conversion had taken place, rendering the case one of empyema, instead of the ordinary form of chronic pleurisy. Whether this conversion has taken place, is a clinical question often not easily decided by the symptoms and signs. The occurrence of chills and hectic paroxyms is presumptive evidence, but not reliable, since they are observed in cases of simple chronic pleurisy. Stronger evidence is afforded by the quantity of liquid not being reduced, or continuing to increase notwithstanding the use of remedies designed to produce resorption, as shown by the physical signs, and especially, according to

the opinion of some observers, by a marked distension of the intercostal spaces. The organization of pus, as is well known, offers a physical obstacle to endosmosis, greater than is presented when the effused liquid consists of serum with more or less coagulated fibrin. The propriety of the operation of paracentesis was considered, in this case, under the present circumstances, but as the patient was laboring under a recent acute attack, and, although the quantity of fluid in the right pleural sac was large, no difficulty of respiration being experienced, nor any evidences of defective hematosis manifested, it was concluded, with the advice of Dr. Dudley, attending surgeon to the hospital, to postpone it.

Dec. 18.—Patient reports greatly improved. He is up and dressed, and his aspect is much better than on the preceding date. The cough is less troublesome, and the quantity of expectoration diminished. The right side now appears again moderately contracted. The intercostal depressions on this side are again visible. Feeble respiration is heard over the right scapula, and in front on the right side, above the third rib. The tenderness has much diminished. The amount of effusion has evidently diminished since the 6th inst. The patient is in a fair way to recover from the effects of the late attack.

This is the condion of the patient at the time of writing. The case will continue under observation, and the question of resorting to paracentesis is, for the present, deferred. Statistics show that in a large proportion of cases of chronic pleurisy, recovery, in the end, takes place under judicious management, and with the observance of due precautions. Under all the circumstances, notwithstanding the duration of the affection, a favorable prognosis may probably be entertained in this case, and in the absence, as yet, of a sufficient number of observations showing the results of paracentesis in similar instances, there is certainly room for doubt whether the chances of recovery would be increased at the present moment by the operation, when it is considered that there is not embarrassment of the respiratory function sufficient to occasion immediate danger, or, indeed, any suffering.

A favorable prognosis in this, and similar cases, of course involves the absence of tuberculous disease. It is a current opinion

that chronic pleurisy is very frequently associated with tubercle, either as a sequel or an antecedent affection. This opinion will be found in most modern works which treat of chronic pleurisy.—The results of numerical analysis, however, show that it is very far from the truth, the connection with tubercle existing in only a small proportion of instances.* In the present case, and in the other cases remaining to be noticed in this paper, the evidences of tubercle are wanting up to the time that the patients remained under observation. How is the co-existence or non-existence of tubercle to be determined? The condition of the lung on the side in which the pleuritic effusion exists, precludes the application of physical exploration, to ascertain whether it contains a tuberculous deposit or not. So far as physical signs are concerned, the question is to be settled by an examination of the side not affected with pleurisy. Recollecting the law of tuberculosis, that the deposit takes place first at the apex of one lung, and shortly afterward at the apex of the other lung, if we find the non-pleuritic side entirely free from all signs of disease, it follows, either that the lung on the pleuritic side is not the seat of the deposit, or that, if there be any deposit, it has taken place too recently for the opposite lung to have become affected. Various symptoms will assist in arriving at a conclusion with respect to this point. If the disease be complicated with tubercle, cough and expectoration will be likely to be more or less prominent, the latter being solid, or purulent. These symptoms, it is true, may be present without tubercle. They do not alone prove the existence of the latter, but only increase the probabilities of this being the case; while, on the other hand, the absence of cough and a solid or purulent expectoration, is strong, but not conclusive proof against the co-existence of tubercle. In many, if not most cases of simple chronic pleurisy, cough and expectoration are either absent, or are not prominent symptoms. Notable and progressive emaciation should create suspicion of tubercle, patients affected with pleurisy alone, frequently preserving considerable *embonpoint*. Hemoptysis must also be deemed an ominous symptom, but in one of the cases that have fallen under my observation, hemorrhage occurred repeatedly,

* *Vide* Essay.

without other indications of the existence of phthisis, complete recovery taking place, the patient at the present time enjoying excellent health.

CASE 2.—*Disease subacute from the beginning. Case received into a hospital as one of ship fever. Patient performing duties of day laborer after six weeks, and continuing so employed for nearly three months. Attacked with intermittent fever, and entered the hospital to be cured of that affection. Pleuritic inflammation not renewed. Discharged from the hospital after about four weeks, reporting quite well, the chest still containing considerable liquid effusion.*

ANDREW MAHER, aged twenty; Irish; laborer; been in America five months; father, mother, three brothers and one sister in Ireland, living and well when last heard from; admitted Oct. 25.

The patient stated, on his admission, that he had always had good health prior to coming to this country, but was attacked with ship fever shortly after his arrival, and was ill for a month. He then came to Louisville, and was employed as a laborer on the Jeffersonville railroad up to the time when he dated the commencement of his present illness. Two weeks before his admission he was attacked with intermittent fever, the paroxysms recurring daily for four days, when they were arrested by the sulphate of quinia, but again returned every alternate day,, and continued up to the time of his admission. During the two weeks prior to his admission, he had repeated attacks of epistaxis, by which he thinks he lost some quarts of blood.

At the time of his admission his aspect was notably anemic.—There were present anorexia, nausea and vomiting, thirst, pulse one hundred and fourteen. The day previous he had had a chill followed by febrile movement. He stated that he had not at this, or any previous period had cough, or other pulmonary symptoms. No examination of the chest was made at this time. The disease was supposed to be simply intermittent fever, and the sulphate of quinia was prescribed in dose of gr. xx, in the twenty-four hours.

Oct. 27.—Patient has had no recurrence of paroxysms of intermittent fever since his admission. Reports better. Complains

only of debility. Stated again, that he had no cough or expectoration. Pulse ninety-six. Perspired freely the previous night.—Keeps the bed from sense of debility.

Physical Signs.—The breathing movement is notably greater on the left than on the right side. The left side appears larger in volume than the right.

Dullness on percussion exists on the right side as low as the interspace between the fourth and fifth ribs, and flatness below the fifth rib. Over the left side clear vesicular resonance. Over the left side, in front, exaggerated vesicular respiration, with an expiratory sound lower in pitch than that of inspiration. On the right side, in front, the respiratory sound tolerably evolved, but notably less in degree than on the left side; the vesicular quality less marked; the inspiration higher in pitch. Vocal resonance about equal on both sides. Vocal fremitus somewhat greater on the right side at the summit of the chest. Right semi-circumference, in line of nipple, sixteen and one quarter inches, the left, sixteen and three quarter inches, making the contraction of the right side an inch.* Right interscapular space, measured a little above the inferior angle of scapula, half an inch less on the right, than on the left side. No spinal curvature.

Treatment.—The citrate of iron and sulphate of quinia, and nutritious diet.

On asking the patient if he has ever had pain in the right side, he replies in the affirmative. He states that he had pain in that situation after being attacked with what was called ship fever, shortly after his arrival in this country. It appears, that being taken ill soon after landing, he entered a hospital, and was there told that his disease was ship fever. He remained in the hospital a week only. He was considered well enough to be discharged after the lapse of a week. He had been confined to the bed for two days only, before entering the hospital. He had no pain in the chest till after his discharge from the hospital. No physical exploration of the chest was made while in the hospital. The pain was situated at the inferior anterior and lateral portion of the

*Assuming the normal semi-circumference of the right side to be half an inch greater than that of the left side.

right side. It was not constant. He describes it as sharp, and felt especially in inspiration. He did not work for three weeks after leaving the hospital. States that he was too weak to work, and he noticed, also, that on active exercise he was put out of breath. When he commenced to work, three weeks after leaving the hospital, he found that he could not do his accustomed amount of labor. He was wanting in breath, and the pain in the right side returned. He was obliged to give up work after continuing the attempt for six days, and he then got a blister for the right side. He rested a week, and then again went to work. He was now able to work pretty well, and he continued at labor till he was attacked with intermittent fever, two weeks before his admission to the Louisville hospital. In the mean time, (a period of about three months) he had no pain in his side, and was not sensible of being put out of breath by exercise more than usual.

This case differs from that previously given, in the fact, that the pleuritic imflammation was subacute at the commencement; in other words, the affection did not succeed acute pleurisy. In this respect the case accords with the larger number of the cases of chronic pleurisy met with in practice.

The case illustrates, in a striking manner, the latency of the disease, as regards the rational or vital symptoms, and the liability, without resorting to physical exploration, to overlook it, or confound it with other affections. The patient, after an illness of two days, has recourse to a hospital. He presents no prominent ailments referrible to the chest, and, being an immigrant just arrived, it is presumed that he labors under typhus fever. That this was not the fact is sufficiently shown by his being well enough to be discharged from the hospital, after remaining a week. After leaving the hospital, as he states when questioned with reference to the point, he had some lancinating pains in the right side.—This circumstance he had forgotten, or deemed it not of sufficient importance to mention of his own accord. He was unable to labor for three weeks after leaving the hospital, in consequence of debility and want of breath. At this time the chest doubtless contained an abundant liquid effusion. He attempts to labor after three weeks, but after a trial of six days, is obliged to give it up from

pain in the side and want of breath; but after resting another week, he makes a second attempt with better success, and finds himself able to do his accustomed amount of labor continuously for nearly three months, when he is attacked with intermittent fever from which he suffers for two weeks, and then comes to the hospital. In this case again is exemplified the fact that with considerable, and even a great amount of effusion within the chest, patients are capable of performing hard manual labor, with the usual exposure, etc., for it is not to be supposed that five weeks after the commencement of the disease much progress had been made in absorption, since the chest contained considerable liquid five months afterward, at the time the foregoing record was made. The process of absorption was slowly going on, probably, during the time he was constantly employed as a day laborer, and unconscious of any important malady.

The case shows, also, that although persons thus situated are exposed to renewed attacks of inflammation, as was illustrated in the first case, yet that they may escape under circumstances when *à priori* this could hardly have been expected. There was no renewal of the inflammation in consequence of the muscular exertions, exposure, and imprudences of various kinds incident to the life of an Irish rail-road laborer. Nor did an attack of intermittent fever, lasting two weeks, reproduce the pleuritis; for, when the patient entered the hospital, and during his stay there, no evidences were present of an affection of the chest, except that the processes of restoration from chronic pleurisy were not completed.

Nov. 8.—This patient was able to sit up, a day or two after the date of the previous record, and has constantly improved up to this date. He is now employed as an assistant to the ward attendant. His aspect is much improved. He reports quite well, has no pain, and is not put out of breath on exercise. Appetite is good, and bowels regular. A careful physical examination, with more minuteness of detail, made on this date, led to the following results:—

Inspection.—Right side contracted at the lower third. Breathing movement (expansive and elevation) notably greatest on the left side. This disparity especially marked on forced respiration.

The contraction apparent behind, as well as in front. The right shoulder depressed. No curvature of spine. Right nipple about half an inch lower than the left.

Mensuration.—Width of inter-scapular space on left side, three inches, on right side, two and three quarter inches, at upper part. Near lower angle of scapula, on right side, two and three quarter inches, on left side three and one quarter inches. Semi-circumference of right side through the nipple, sixteen and one quarter inches, semi-circumference of left side, sixteen and three quarter inches.

Percussion.—At summit of right chest, above third rib, notable dullness; over and below third rib, dullness, approximating to flatness; below interspace between fourth and fifth ribs, positive flatness. Marked dullness in right supra and infra spinous spaces behind; dullness still greater over lower portion of scapula, and flatness below the inferior angle.

Auscultation.—At summit, in front, on left side, well evolved vesicular murmur with inspiration, and no sound of expiration appreciable. On right side very feeble, almost inappreciable sound of inspiration, with a rather feeble but distinct and prolonged sound of expiration. Absence of all respiratory sound over the middle and lower thirds, on right side. Behind, over right scapula, a very feeble sound of inspiration. Absence of respiratory sound over lower part of right scapula and below scapula.—On left side, exaggerated vesicular respiration. Bronchophony at summit of right, and not on left side. Absence of vocal resonance over middle and lower thirds of right side. Behind, moderate vocal resonance over the left scapula, but more marked over the right; none below scapula on either side.

Vocal fremitus, marked at summit of right side, and not on left; none on either side over middle and lower thirds.

Width of Intercostal spaces.—Between sixth and seventh ribs on right side, on vertical line through nipple, distance one inch.—On left side, on corresponding line, one and a quarter inch.

The patient continues to report absence of cough and expectoration. The treatment with citrate of iron, and the sulphate of quinia, and nutritious diet is continued.

Nov. 20.—Patient reports quite well and wishes to be discharged. A physical examination made on this date showed some increase in the measurement of the chest, on both sides, the patient having evidently gained in weight since he entered the hospital.—The dullness on percussion above the fourth rib on the right side had diminished. In other respects the signs remained the same.

The patient was discharged on this date, the right chest, as appears from the examination just referred to, still containing considerable liquid effusion.

CASE 3.—*Disease having existed for several years, its precise duration not determinable, owing to absence of pain, and other symptoms denoting pleuritic Inflammation. Patient able to do hard labor while laboring under the disease. Progress toward recovery notwithstanding drunkenness, etc. Patient still in hospital.*

DAVID LATEN, aged 42, laborer, admitted Nov. 16.

From the account given by the patient at the time of his admission, he appeared to be laboring under intermittent fever, and was placed under treatment for that affection. Shortly after his admission he had an attack of delirium tremens and recovered in a few days. He then began to complain of some cough and pain in the right side.

A physical examination of the chest was not made till the 13th of December. In the mean time, the patient had seemed to be improving, was up and dressed, and about the ward, reporting daily that he was better. The existence of some cough, pain in the right side, and a pallid aspect led to the suspicion of some pulmonary affection.

PHYSICAL SIGNS.

Inspection.—Right shoulder somewhat depressed. The inferior part of right chest appears contracted. The summit of right chest relatively flattened. Breathing movement of right side less than of the left.

Mensuration.—Right semi-circumference, just below the nipple seventeen inches; left, seventeen inches. Right interscapular space at lower angle of scapula, three and three quarter inches, left, five inches. Patient in sitting posture with arms evenly folded.

Percussion.—Behind, relatively (to left side) dull over whole right side. Dullness more marked over scapula than below. In front, dullness above lower margin of third rib, and flatness below this point. Flatness over the whole axillary region. Clear vesicular resonance over the left side.

Auscultation.—In front, at the summit of left side, well evolved vesicular respiration, low in pitch, inspiratory sound alone heard. At the summit of the right side in front, inspiratory sound alone heard, higher in pitch than on the left side, and less vesicular.—Disparity in these points between the two sides marked. Below third rib, on the right side, nothing heard but the heart sounds.—Behind, over right scapula, inspiration alone heard, feeble, vesicular, and rather high in pitch. Below scapula, inspiration better evolved and vesicular. On left side, respiratory characters concealed by a sibilant râle, heard both at the upper and lower portions of the chest. Vocal resonance more marked at summit of right, than of left side in front. None on either side in front over middle and lower thirds; behind, slight over right scapula, and none over the left; more marked below right scapula, and none below the left. Vocal fremitus marked at the summit of the right side, in front, and none on the left; none over middle and lower thirds on either side; slight over right side, behind, below scapula, and none on the left side.

Heart impulse very feeble between the fifth and sixth ribs, on vertical line with nipple. Heart sounds pure. Tenderness on pressure over lower portion of right side.

The account of the previous history given by the patient is as follows:—He has suffered from intermittent fever, more or less, for several years past, especially during the autumn and winter. Has never been laid up with an acute affection accompanied by pain in the chest. He does not recollect ever having experienced pain in the right side, but has formerly had some pain in the left side! Since entering the hospital, however, has felt some pain in the right side. Has had some cough with expectoration for several years. Has at the present time about the same as usual. Has observed that his breath has been short on exercise for several years, but he has not experienced much difficulty from this source. Has worked as a laborer constantly during the summer months,

but during the winter has generally worked but little. Has been able to do a good day's work in the summer. Has never had hemoptysis. His aspect is pallid. He is not emaciated, and has kept at about the same weight for several years. He is habitually in the use of ardent spirits, and addicted to excesses in their use. Respirations sixteen. Pulse sixty-six.

The patient still remains in the hospital, the foregoing examination having been made but a few days prior to the time of writing this record.

This case is interesting from the fact that the patient has doubtless labored under chronic pleurisy, or an accumulation of liquid effusion within the chest, in consequence of that disease, for a long time, probably for several years, but it is impossible, from his account, to determine at what date it commenced. The patient cannot recall any local symptoms significant of a pleuritic inflammation at a former period. He has been conscious of not being well for several years, but he has attributed his ill health entirely to repeated attacks of intermittent fever, nor has he ever been told that he was laboring under any other affection. The physical signs show a certain amount of fibrin and liquid in the right pleural cavity, but the contraction of the chest, in this, as in the preceding case, is evidence that the quantity of liquid effusion has been greater at a former period, a considerable portion having been removed by absorption. The processes of restoration have thus been going on, notwithstanding his performing the duties of a laborer in the summer season, the frequent occurrence of intermittent fever, and his being an habitual drunkard. That the disease, under such unfavorable circumstances has not proved fatal, illustrates its intrinsic tendency to recovery.

In this, as in the first case, is exemplified the small amount of inconvenience to which a considerable collection of liquid in the pleural cavity of one side may give rise. The patient has been able to do hard labor during the summer season without difficulty, although he has noticed that his breath was somewhat deficient on active exercise.

It is very evident that in such a case, without the aid of physical exploration, it would have been impossible to have divined the

nature of the pulmonary affection. No suspicion of chronic pleurisy was entertained during the time he remained in the hospital before the chest was examined. Hence it is that so often cases of this disease are called consumption, dyspepsia, general debility, *liver complaint*, etc.

The reader will not fail to remark, that in this, and the preceding case, the favorable tendency of the disease is shown, not only by the progress toward recovery in spite of unfavorable influences, but by the fact, that the patient had received no medicinal treatment directed specially to the chest affection, the latter not having been determined. The ratio of recoveries of uncomplicated ordinary chronic pleurisy under medicinal treatment is large;* and when we see that in cases like these the processes of restoration go on, without treatment, and under most untoward circumstances, the question arises, whether the proportion of recoveries may not always depend more on an intrinsic tendency of the disease, than upon the efficacy of the therapeutical measures pursued. This question, would perhaps be forced upon us oftener than it is, were it practicable to obtain statistics showing the progress and rate of mortality of different diseases uninfluenced by medication. As the true point of departure for estimating the efficacy which belongs to therapeutics, such statistics are as desirable, as they are difficult to be obtained.

Case 4.—*Disease of five weeks' duration. Considerable progress made toward recovery, without medical treatment; the patient laboring under intermittent fever. Case remaining under observation.*

Thomas Butler, aged 39, Irish, laborer, admitted Dec. 8th.

Previous History.—Patient states that he enjoyed uninterrupted good health prior to three years and four months ago. He then began to suffer from attacks of intermittent fever. He had frequent relapses of this disease, but no other affection that he knows of, until during the last winter, (the precise period he cannot state,) he had a lancinating pain in the right side, situated laterally at about the eighth rib. The pain was acute on taking

* See Essay by writer.

a deep inspiration, and on coughing. He was not at this time confined to the bed, nor to the house, but walked a mile to obtain medical advice, after having had more or less of the pain for eight days. The physician whom he consulted applied a blister over the seat of the pain, after which the pain shifted its seat and became more diffused, but in three days it again was concentrated in the particular site above mentioned, when another blister was applied, immediately after which the pain disappeared, and did not again return. The two blisters were the only remedies employed. He went to work two days after the last blister was applied, and he continued to work, being in good health, till about a month afterward he had a relapse of intermittent fever. He states that during the month between the occurrence of the pain and the relapse of intermittent fever, he had no pain, no cough, nor difficulty in breathing, and was as well as at any period in his life. He has continued to have relapses of intermittent fever, arresting the paroxysms with remedies, up to the present time.—About two months ago, while working in a stone-quarry, he was attacked with pain, commencing at about the third lumbar vertebra, and shooting downward into the right hip. This pain was not constant, but occurred in paroxysms. He suffered from this pain, more or less, for two weeks, but it did not oblige him to quit working. After this pain ceased to trouble him, he felt perfectly well, and, in the mean time, became an ostler, and, as he says, after getting his feet wet, was attacked with a chill followed by febrile movement and sweating. About this time, (about five weeks ago,) he began to have pain in the left side. The pain was not severe. He also began to have some cough at about the same time, and the act of coughing occasioned pain over the whole left side. He took quinia directly after the paroxysms just mentioned, and had no recurrence at regular intervals, but had paroxysms occurring irregularly several times during the last five weeks.—His cough has been troublesome, occurring in spells, and accompanied with slight expectoration. He has felt want of breath on exercise, and has been unable to work for the last five weeks.

PHYSICAL SIGNS.

Present Symptoms.—Aspect rather pallid; appetite capricious; tongue clear, but pale; bowels regular; occasional cough, with small expectoration; pulse seventy-two; respiration twenty-one.

Inspection.—Breathing movement (expansive and elevation,) in a marked degree greater on the right side. The left side evidently contracted. The disparity in mobility and size apparent in front and behind. The shoulders on a level. The inter-costal depressions less marked on the left, than on the right side. The left nipple higher than the right. No curvature of spine.

Mensuration.—Semi-circumference of right side, seventeen and one half inches; of left side, sixteen inches. Width of right inter-scapular space at lower angle of scapula, three and one half inches; of left, two and seven eighths inches.

Percussion.—Marked relative dullness over the whole of left side, in front and behind. At the inferior portion of the chest the dullness amounts to flatness. Percussion sound over right side clear and vesicular.

Auscultation.—Respiratory sound on right side, vesicular, normal, tolerably evolved, not exaggerated. On left side, in front, at upper and middle thirds, inspiratory sound inappreciable, with a feeble, high-pitched sound of expiration. At lower third no respiratory sound. Behind, respiratory sound scarcely appreciable any where on left side.

Vocal Resonance.—Generally more marked over the right, than over the left side. In the left axillary region more marked than in the right, and, also, in the left infra scapular region.

Vocal Fremitus.—More marked over the right side, in front and behind, save in the infra scapular region, where it is greater on the left side.

Apex impulse of the heart quite feeble, between the fourth and fifth ribs, directly beneath the nipple.

The previous history in this case renders it probable that the pleurisy occurred about five weeks before the date of the admission into the hospital. The pains which occurred several months before, situated in the right side, were undoubtedly neuralgic, as

well as the pains in the loins and right hip, which preceded the attack of pleurisy. That neuralgic affections should have occurred in a patient suffering for three years, and more, from frequently repeated attacks of intermittent fever, is not surprising. In the five weeks from the date of the present disease there has been an accumulation of a considerable quantity of liquid effusion within the chest, and considerable progress made in its removal by absorption. Both these facts are proved by the present contraction of the chest. The degree of contraction, under these circumstances, shows that the quantity of liquid has diminished, and is in a measure proportionable to the previous enlargement of the chest. That in so great a period, enlargement and subsequent contraction should have taken place, in other words, that the evidences of there having been a pretty large accumulation, and of the removal by absorption of a considerable portion, should be present so soon after the date of the attack, illustrates what is probably the rule in chronic pleurisy, viz: that the effusion takes place rapidly, the chest becoming more or less filled in a brief period from the date of the attack. The commencement of absorption may be indefinitely postponed, or, at all events, this is very variable in different cases. In this instance the process of absorption must have begun soon after the effusion took place. And here, again, is another instance in which considerable progress was made toward recovery without any aid from therapeutics. The patient had no medical treatment prior to his entering the hospital, nor taken any remedies. He had, probably, not had the advantage of the most favorable hygienic conditions, and moreover, had suffered from recurring paroxysms of intermittent fever. The intrinsic tendency of the disease toward recovery is exemplified, in a striking manner, by this case.*

The object of the writer in reporting the foregoing cases of chronic pleurisy, which, within the space of a few weeks have been the subjects of clinical remarks at the hospital amphitheatre, has been, as the reader will have perceived, to present, with brief

* Dec. 24.—This patient eloped from the hospital shortly after the date of the last record.

comments, the illustrations which they afford of some of the interesting and important points pertaining to the development, progress, etc., of this disease, and of the physical signs, by means of which the diagnosis is to be made. In view of the fact, that a positive diagnosis cannot be made without, and is easily made with the aid of physical exploration, it will, perhaps, prove a convenience to some who may possibly have become interested by the foregoing cases and remarks, to give a *resumé* of the physical signs, by which the practitioner who has given no previous attention to the subject may readily determine the nature of the affection.

PHYSICAL SIGNS ASSOCIATED IN CHRONIC PLEURISY.

1. *Signs determinable by Inspection.*—These are divisible into two classes, viz:—*First*, signs prior to absorption. *Second*, signs after the quantity of effusion has been more or less diminished by absorption.

Of the *first* class, the signs are as follows:—Enlargement of the affected side; diminished expansive and elevation movements in respiration, amounting sometimes to complete immobility; abolition of intercostal depressions, or bulging, i. e. elevated above the level of the ribs; interspaces between the ribs increased; obliquity in direction of ribs diminished.

Of the *second* class: visible contraction of the affected side; depression of the shoulder on that side; breathing movements still, relatively to the other side, lessened; intercostal depressions apparent, and abnormal approximation of the ribs; frequently lateral curvature of the spine.

On the healthy side, expansion somewhat increased, and the breathing movements greater than natural. When the quantity of effusion is very large, more or less œdema is usually present on the affected side, and the subcutaneous veins are more prominent than on the healthy side.

2. *Signs determinable by Mensuration.*—*First*, before absorption, increase of semi-circumference of affected side compared with that of the other side, if the quantity of liquid effusion be great; and the enlargement proportionable to the quantity.

Second, After absorption, diminished semi-circumference, proportionate to the progress made in absorption. Approximation of posterior margin of scapula to the spinal column.

3. *Signs determinable by Percussion.*—Flatness over the whole of the affected side, if the quantity of effusion be very large, and flatness from base of chest upward, according to the extent to which the liquid accumulates at the bottom of the pleural sac, and compresses the lung, pushing it upward and backward. Above the point to which flatness extends, dullness on percussion, compared with the other side, due to condensation of the lung substance by compression.

The boundary line dividing the inferior *flat* portion of the chest, from the superior *dull* portion, is well defined, the transition being abrupt, and well marked. Occasionally this line of demarkation will be found to vary with the position of the patient, being lower down when the patient is recumbent, than when in a standing or sitting posture. In a large proportion, however, of cases of chronic pleurisy, the latter test of the presence of liquid effusion is unavailable.

Occasionally a tympanitic resonance, more or less obscure, on the affected side. When situated below the level of the liquid, this must be transmitted sound due to gas in stomach or intestines.—Above that point, it may be still transmitted, or due to gas in the pleural cavity, or possibly, to air in the pulmonary vesicles. On the healthy side, the percussion sound unusually clear. Sense of resistance greater, in other words, less opposition, within the chest, to acting, by pressure, or percussion, on the elasticity of the ribs, on the affected, than on the healthy side.

4. *Signs determinable by Auscultation.*—Over as much of the affected side, from the base upward, as there is flatness of the percussion sound, absence of respiratory sound, the heart sounds being alone heard. Occasional exceptions to this rule, which, it is stated, are more apt to occur in children. Above the line of flatness, a respiratory sound generally appreciable, but very variable in intensity in different cases, preventing more or less of the modifications proper to the *bronchial respiration*, in other words, having more or less completely the characters of the normal bronchial respiration heard in many persons at the sterno-clavicular junction in front, and at the upper part of the inter-scapular space behind, and, also, in an exaggerated degree, over the trachea.—These abnormal modifications, or characters, are the following:—

the quality of sound, more or less tubular, or blowing, in other words, the vesicular quality characteristic of normal pulmonary respiration lessened, or absent; the inspiration shortened, and higher in pitch than the normal pulmonary respiratory sound; an interval between the sounds of inspiration and expiration, if a sound of expiration be present; a prolonged expiration, if it be present, having a higher pitch than the sound of inspiration.

The vocal resonance generally more marked at the summit of the affected side, over the condensed lung, than over the corresponding situation on the healthy side. Occasional exceptions to this rule, see No. 4, of the foregoing cases. On the healthy side, the respiratory sound, if the chronic pleurisy be uncomplicated with tubercle, or other affection of the lungs, presenting the normal characters of the vesicular murmur, often exaggerated. Under these circumstances the increased intensity, without other change, of the murmur, very properly has suggested the title, *supplementary respiration.**

5. *Signs determinable by Palpation.*—More or less tenderness on pressure of the affected side. Vocal fremitus at the summit of the affected side, over the condensed lung, usually more marked than over the same situation on the healthy side. Occasional exceptions to this rule, see case, No. 4. Below the level of the liquid effusion absence of all fremitus, and, if the patient naturally have a fremitus, there will be a contrast presented by its presence on the healthy side.

The apex impulse of the heart frequently removed from its normal position. In pleurisy of the right side with large effusion, before absorption, the heart usually pushed in a direction upward and to the left; after absorption, returning, is sometimes drawn to the right. In pleurisy of the left side, removed in a direction to the right, and upward, carried beneath the sternum and occasionally even beyond the right margin of the sternum. In some instances the apex impulse not perceptible, nor visible, and the

* I do not enumerate under the head of the auscultatory signs, friction sounds, and the vocal sign called egophony. The former are rarely heard in cases of chronic pleurisy, according to my experience; and the latter still mor unfrequently. Moreover, it appears to be settled that egophony when sufficiently distinct is not pathognomic of the presence of liquid effusion.

abnormal situation of the heart only determinable by ascertaining at what point the sounds are heard with a maximum of intensity.

6. *Signs determined by Succussion.*—A greater mobility of the clavicle on the affected side was observed in one of the cases reported. (No. 1.) No sounds are developed by this mode of exploration.

ART. III.—UNIVERSITY CLINIQUE.—SURGICAL CASES AND OBSERVATIONS.

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IT will be recollected by the readers of this Journal that, two years ago, a Surgical Clinique was established by the Medical Faculty of the University of Louisville, and placed under my charge and direction. The object was to furnish, gratuitously, advice, medicine, and operations to the poor of the city, and to such persons from a distance as might resort hither for professional aid without being in a condition to afford adequate remuneration for such services as they might require. The effort, during the first winter, was eminently successful, and would, probably, have been equally so last winter, had the clinique not been suspended on account of my being obliged to take charge of the surgical ward of the Louisville Marine Hospital, which, every alternate session of the school, is under the supervision of the Medical Faculty of the University. A large number of cases, many of them of a highly interesting and instructive character, were presented to the medical class, accompanied by such remarks as their peculiar features seemed to demand, or the occasions prompted. Of the various operations that were performed it is necessary here

only to enumerate the more important. These were, lithotomy—three cases—amputation of the leg below the knee; tenotomy; operations for cataract, strabismus and anchylosis; staphyloraphy; the removal of sequestra; and the extirpation of different kinds of tumors from the scalp, neck, and other regions of the body. Almost every form of syphilitic and ophthalmic diseases was exhibited, and commented upon during the course of the session.

The present clinique was opened early in October, immediately after the commencement of the Fall course of lectures, and the pupils of the University have already had an opportunity of witnessing a large number of valuable and instructive cases, as well as a number of important operations. It will be my design, in the ensuing pages, to give an account of some of these cases, with such remarks as they were calculated to elicit at the time of their exhibition; hoping thus to render them more interesting and valuable to the readers of the Journal. It is proper to add, in this connection, that the Clinique is held every Saturday from eleven to one o'clock at the amphitheatre of the University, and that it is open to all the matriculated pupils of the institution, as well as to the regular practitioners of the city, to several of whom, especially to Dr. D. D. Thomson, Dr. D. O'Reilley, Dr. Lyle, and Dr. Metcalf, the establishment is indebted for important contributions in the way of clinical material. My assistants, during the present session, are Dr. Charles S. Savage, of Germantown, and Dr. William R. Evans, of McAffee, Kentucky. The former is the clinical clerk, and upon him is devolved the duty of keeping a record of every case brought before the class. Of the memoranda thus supplied, I shall freely avail myself in the ensuing pages. The reports will be continued in future numbers of the journal.

Case 1.—*Hydrocele of the Vaginal Tunic, with Chronic Enlargement of the Testicle; Operation with the Seton; Cure.*

J. McK., of Indiana, aged thirty, was presented at the Clinique on the 3d of October, on account of an enlargement on the right side of the scrotum, caused by chronic swelling of the testicle, and by effusion of serum into the vaginal tunic. The enlargement of the gland had existed for many years, without any tendency to increase, until several months ago, when, in consequence of a blow

upon the part, it became quite tender, inflamed and tumid. The injury was so severe as to produce syncope. From this time on, the tumor gradually augmented in volume, and, when the patient reached town, it was found to be at least six inches in length, extending as high up as the external abdominal ring. It was nearly cylindrical in shape, but somewhat larger below than above, free from pain and discoloration, and remarkably firm in its consistence. Its base was formed by the testicle, which was, perhaps, three times the normal bulk, and of uniform outline. The spermatic cord was easily distinguishable at the superior extremity of the tumor, and appeared to be perfectly natural in shape and consistence. There was no enlargement of the subcutaneous veins, or of the lymphatic ganglions of the groin. The opposite testicle was sound, and the general health good.

The absence of fluctuation and translucency of the tumor, together with its extraordinary firmness, threw some little temporary doubt upon the diagnosis; but this was soon dispelled by the introduction of an exploring needle, the puncture of which was immediately followed by the escape of serum, thus revealing the true character of the affection. The instrument having been inserted at several points, the greater portion of the fluid flowed out into the cellular tissue of the scrotum, where it was gradually absorbed, followed by great diminution of the swelling. By the end of a week, however, the accumulation was nearly as great as ever, notwithstanding the steady maintenance of the recumbent posture, the careful suspension of the part, the application of refrigerant lotions, and the internal use of the antimonial and saline mixture. Finding this tendency to recurrence of the disease, the man was taken before the class, and a seton introduced into the tumor with a view to a radical cure. The patient was placed upon his back, when the tumor was seized with the left hand, applied to its posterior surface, so as to render the integuments perfectly tense in front. A medium-sized trocar was then inserted just above the enlarged gland, and after the fluid was evacuated the instrument was re-introduced, and brought out about an inch and a half above the former opening. The trocar was now withdrawn a second time, while a silver probe, armed with a narrow strip of muslin, was passed through the canula protruding at the two orifices.

The tube being removed, the ends of the seton were tied, and the patient, with the testicle properly suspended, was sent to his lodgings. The operation was performed on the 10th of October, and the foreign substance was withdrawn on the third day after, a sufficiency of inflammation having been induced to obliterate the cavity of the sac. During the treatment the man was confined to the recumbent posture, and kept upon light diet. On the fourth day he took an ounce of Epsom salts, and this was all the medicine he used. Cold water was freely employed upon the part, to moderate inflammatory action.

On the 18th of October the patient was discharged cured. The testicle was considerably diminished in volume, and to insure its further decrease I directed the man to pay special attention to his diet and bowels, to keep at rest, and to take, three times daily, a pill composed of three quarters of a grain of iodide of mercury, one twelfth of a grain of tartrate of antimony and potassa, and a third of a grain of opium; continuing its use until the gums should become affected.

In calling the attention of the class to this mode of treatment, I may say a few words respecting the manner in which it effects a cure. The inflammation resulting from the contact of the foreign body eventuates in an effusion of plastic lymph—the animal glue of the system—by which the sac, formed by the vaginal tunic, and containing the serous fluid which constitutes the disease, is ultimately obliterated. I cannot agree with Mr. Liston, Mr. Miller, and some other writers, that the cure is established by a mere change in the secretory powers of the affected membrane; on the contrary, there is reason to conclude, both from analogy and observation, that it depends upon the actual adhesion of the sides of the sac, just as happens in cases of pleurisy where the effused lymph produces adhesion between the pulmonary and costal surfaces. In time, much of this adhesion disappears, but rarely to an extent sufficient to admit of a re-accumulation of serum.

Of all the operations performed for hydrocele, I prefer the seton, for the reason, first, that it is always free from danger, and secondly, that it is always certainly successful. I have employed it frequently, and have never, except in one instance, known it to fail. In that case it would no doubt have been perfectly success-

ful, had it been retained sufficiently long to excite the requisite degree of inflammation. The period of its sojourn in the parts must necessarily depend upon circumstances, of which the principal are the age and volume of the tumor, the health of the patient and his susceptibility to inflammation, the size of the seton, and the manner of performing the operation. In my own practice I have found the average period to be from three to five days.—Generally speaking, the tape should be withdrawn as soon as the part has acquired a considerable portion of its former bulk and consistence, and the skin is red, tense, and painful, or matter appears at the orifices made by the trocar.

The use of the seton is not a modern device in the treatment of this affection; on the contrary, it was resorted to centuries ago. Lanfranc, a surgeon of Milan, appears to have been the first to employ it. Having made a small incision into the skin, he plunged a needle into the tumor, and thus deposited the foreign substance, by the side of which the accumulated serum gradually drained off. Finally, in accordance with the barbarous notions of the times in which he lived, he applied the hot iron to the wound to induce it to suppurate and cicatrize. Guy de Chauliac had recourse to the same treatment; and the seton, without the cautery, was afterwards employed by Ambrose Paré, Peter Franco, and other surgeons in the sixteenth century. In the last century the great advocate of this procedure was Percival Pott, of England, as may be seen by a reference to his able "Tract upon Hydrocele," in his Chirurgical works, edited by Mr. Earle, of London.

The operation by incision I consider not only as dangerous, especially when the system has not been thoroughly prepared, but as incapable, at least in some cases, of effecting a radical cure. I have seen several instances wherethis operation, performed by other surgeons, has been followed by relapse; the adhesions, consequent upon it, having given rise to the formation of several compartments, or chambers, each of which afterwards required a separate operation for its obliteration. In one case, in which I, myself, was the operator, the patient, a stout, robust man, upwards of sixty years of age, came very near losing his life from the severity of the resulting inflammation.

The operation by injection, so generally pursued at the present

day, and so much vaunted by some writers, although much safer than the operation by incision, is by no means free from objection, or devoid of danger. Thus, in performing the operation, the cannula may slip out of the vaginal tunic, and allow the fluid to escape into the cellular tissue of the scrotum, where its presence may readily induce gangrene and other mischief. Again, I have known the operation to be followed by violent inflammation and suppuration of the vaginal tunic, and, in one instance, even by fatal tetanus. The injection had been performed with port wine and water, and the patient, whom I saw in consultation, was a stout, robust mechanic, about twenty-six years of age. Tetanus supervened on the eighth day after the operation, and in less than two days the man expired. The vaginal tunic was found considerably thickened, and its cavity contained several ounces of serosanguinolent fluid, intermixed with unhealthy looking pus. No adhesion had taken place between the opposite sides of the sac, which was highly inflamed. Several similar examples are mentioned by surgical writers.

I have thus spoken of some of the operations which are employed for the radical cure of this affection. Before I dismiss the subject, I wish to offer a few remarks upon one or two other points, a knowledge of which will not be devoid of interest in a practical sense.

In the first place, the tumor in this case is of peculiar shape. Ordinarily it is somewhat pyriform, or pear-like, larger below than above, but here it is perfectly cylindrical, tapering a little as it approaches the groin. Again, the testicle is generally situated at the posterior part of the tumor, about the junction of the inferior with the two superior thirds, but in the case of McK. it lies at the very base of the swelling, which, indeed, it forms. This, then, is another exception to the rule, and one which, diagnostically speaking, is of some importance. The exception here noticed is generally recognized by surgical writers, but not, I think, to the extent it should be. I have paid particular attention to this subject, and am satisfied that the testicle is not unfrequently, instead of rarely, situated at the bottom of the tumor. What the precise relative proportion is my experience does not inform me, but I am sure

that I have met with at least eight or nine cases of it within the last few years.

Another feature of some interest in the case is the absence of translucency, which, ordinarily, forms so conspicuous a trait in a tumor of this kind. This circumstance was probably owing to the thickening of the vaginal tunic, produced by chronic inflammation, and thus rendering a structure, naturally transparent, perfectly opake. Finally, the tumor was more firm than we usually find it; generally it is soft, compressible and elastic, often, indeed, distinctly fluctuating, especially in its earlier stages, and when of small size.

The above circumstances, together with the enlargement of the testicle, were, as was before stated, calculated to obscure the diagnosis, and cause me to entertain, at first, some anxiety about the issue of the case. The introduction of the exploring needle, however, at once dispelled these doubts and apprehensions, and led not only to a full comprehension of the nature of the malady, but to a proper method of treatment.

It is interesting to know that hydrocele occasionally disappears spontaneously, or under the influence of slight external injury. Many cases are reported where the fluid was gradually absorbed without any subsequent reproduction, in consequence of the effects of protracted and exhausting diseases; and, some years ago, my colleague, Prof. YANDELL, met with an instance in an elderly gentleman who was cured of a large hydrocele, that had annoyed him for many years, by the concussion of a fall backwards from his horse.

CASE 2.—*Un-united Fracture of the Humerus, successfully treated by external Friction, the Splint, and Bandage.*

An Irishman, thirty years of age, of good constitution, and tolerably regular habits, while engaged, on the 7th of July last, in carrying a bale of cotton on his shoulder, fell with his burden, and broke his arm about four inches above the elbow joint. The fracture was transverse. A surgeon being called in, the limb was dressed, and after an attendance of five weeks it was ascertained that the fragments had partially united, but so irregularly as to produce serious deformity. What still further aggravated the

case was anchylosis of the elbow-joint. Another practitioner was was now consulted, who, seeing the deformity of the limb, broke the osseous adhesions, and re-adjusted the extremities of the fragments, supporting the parts with splints and bandages. The dressings were frequently removed, and the ends of the broken pieces rubbed against each other, to promote their re-union, but without success. In this condition the patient presented himself at the University Clinique on the 3d of October, nearly three months after the receipt of the injury. There was at this time considerable provisional callus at the seat of the fracture, but the parts were very movable, and it was evident that there was great danger of the formation of an artificial joint. The general health appeared to be good, and there was no inflammation in the soft parts, which could be handled quite roughly without exciting pain or suffering. The elbow-joint was very stiff.

The treatment consisted in washing the arm frequently with soap and water, in rubbing it with spirits of camphor, or some other stimulating lotion, and in supporting it, in the intervals, with a bandage and two leather splints, adapted to the shape of the limb; the hand and fore-arm being carried in a sling. The bowels were maintained in a soluble condition by the occasional exhibition of mild aperients; a light but nutritious diet, with frequent exercise in the open air, was enjoined; and the elbow was moved every few days to restore its functions. Under this treatment there was a gradual but decided improvement, and the man left me at the end of six weeks, with a pretty firm union.

It should be remarked that there was some reason to believe that the man was laboring under a syphilitic taint of the system; though, in this respect, no very satisfactory information could be elicited. I, however, put him, some weeks after he came under my charge, upon the use of the iodide of potassium, giving him ten grains, three times a day. He was still taking the remedy when he left me, and I have reason to believe, from the rapid improvement which occurred soon after the exhibition was commenced, that it rendered him great service, in modifying and improving the action of the capillary vessels of the affected parts.

Want of reunion in a fracture may depend upon a great variety of causes, some of them resident in the parts, others connected

with the system. Thus, it may be occasioned by the interposition of a clot of blood, or of a piece of muscle, tendon, or bone. An instance is mentioned where a fracture was prevented from becoming consolidated by the presence of a musket ball. Too much motion, the long-continued use of cold water, especially in persons of a nervous, irritable temperament, and tight bandaging, may also bring about this result. Some years ago I saw a case at the Louisville Marine Hospital, in which, from the latter cause, the consolidation of a fracture of the thigh-bone was delayed for nearly a twelve-month. The limb had become excessively atrophied from the long-continued and injudicious use of the roller, and it was not until after it had been entirely laid aside, and the man had been permitted to exercise upon crutches in the open air, that nature seemed to consider herself in a fit condition to commence the process of reparation, from which she had been so long detained by this mode of treatment.

But the most common local cause of tardy reunion, in injuries of this description, is the want of accurate apposition between the ends of the fragments. This appears to have been the case in the instance under consideration. The memorandum, made by DR. SAVAGE, states that partial consolidation had taken place by the end of the fifth week, but that the deformity was so great that the surgeon, who now took charge of the case, was induced to break the callus, and re-adjust the fragments. Had this defect in the treatment been avoided, the probability is that the re-union would have taken place nearly in the usual time, even supposing that the man's system was slightly tainted with the syphilitic poison.

The great error, commonly committed by practitioners in the treatment of fractures of the shaft and lower extremity of the humerus, is, that they do not afford sufficient dependency to the elbow. Instead of permitting this part of the limb to hang down they support it in a sling, and consequently force the inferior fragment out of its natural relations, beyond the upper one. The proper plan is to keep the elbow free, but steady, so as to compel it by its own weight to maintain the requisite apposition.

The principal constitutional causes which interfere with the reparative process are, debility, whether from loss of blood, want of nutritive action, or exhausting disease, as long-continued fever;

a gouty, rheumatic, or syphilitic state of the system; and loss of nervous influence. Another cause, but one which, I presume, seldom, exerts much influence, is pregnancy. It is barely possible, I conceive, that during this state there may be such an abstraction of blood from the affected parts for the nourishment of the fœtus as to retard, and, perhaps, even temporarily prevent, the formation of callus. In the few cases of this kind which have fallen under my observation, I have not, however, witnessed such an effect, and I am strongly inclined to believe that this influence has been greatly magnified, if indeed, it is not almost wholly chimerical. Another cause, probably much more efficient, as well as much more common, than the one just alluded to, is the protracted and inordinate use of ardent spirits, weakening the nutritive energies of the system, and rendering the blood and its vessels unfit for the performance of the important duties assigned to them in the reparative process.

Whatever the cause may be, great pains should always be taken to discover it, with a view to its early and efficient rectification. Should it consist in debility, however induced, the patient should be at once put upon the use of nutritious food and drinks, as porter, ale, wine, or brandy, aided, if necessary, by tonics, of which iron and quinine are generally the most eligible. A gouty or rheumatic state of the constitution is best remedied by purgatives, acid drinks, and colchicum. Tertiary symptoms should be met by iodide of potassium, either alone, or in union with mercury, the latter of which should sometimes be carried to the extent of slight ptyalism. Debility from drunkenness must be counteracted by the judicious employment of ardent spirits, such, if possible, as the patient has been in the habit of using previous to the accident.

The local treatment must be regulated by the circumstances of each particular case. The precise cause of the tardy or imperfect union must, if possible, be clearly ascertained, and immediately remedied by appropriate measures. If it depends upon too much motion, greater quietude must be insured; any defect of contact must be redressed by a more accurate adjustment of the ends of the fragments; cold applications, if injurious, must be discontinued; and any extraneous intervening substance must be removed, either by calling into requisition the agency of the absorbent

vessels, by pressure and other means, or, as in the case of a piece of dead bone, by the knife and forceps. The cause of the defective union having been thus remedied, the case will be likely, of its own accord, to proceed to a favorable termination, the ordinary principles of treatment being, of course, observed.

The principal local remedies, beside those just mentioned, are: 1. Cutaneous friction, either with the bare hand, or with a piece of flannel; and the friction may be either dry or moist. In the latter case, various liniments, lotions, or unguents may be employed, and often with marked benefit, inasmuch as they tend to excite the action of the capillary vessels in and around the ends of the fragments, and thus promote the formation of callus. 2. Compression, steady and persistent, uniform and gentle; performed by means of leather splints and a bandage, as in the case of our patient; or by an apparatus expressly constructed for the purpose, and intended to concentrate the pressure at the seat of the fracture. 3. Blisters and iodine; these remedies are employed in the usual manner, and are mainly useful when the defect is dependent upon undue vascular excitement. 4. Friction of the ends of the fragments against each other, as recommended by CELSUS, and practised by modern surgeons. The operation should be performed very gently, and be repeated once every four, six, or eight days, according to its effects, care being taken to confine the limb in the intervals by an appropriate apparatus. 5. Acupuncturation with a long, slender needle may be tried; or a small incision may be made over the seat of the injury, and a heated wire inserted between the ends of the fragments. These are modern devices, which have occasionally been followed by success. 6. The seton; introduced into practice, in 1802, by the late Dr. PHYSICK, of Philadelphia, and ordinarily, in obstinate cases, the most certain method. It should be passed between the ends of the broken pieces by a long, thin, flat needle, sharp and lancet-shaped at the point; or, where this is impracticable, as near the site of the fracture as possible; for experience has shown that this mode of performing the operation is nearly as successful as the usual procedure. The foreign body is retained for a variable period, longer in some cases than in others, and generally until it has excited suppurative action. The patient is carefully watched; and if the pain and swelling

become severe the seton is at once withdrawn. Immediately after the introduction, the fragments are carefully adjusted, and steps taken, if necessary, to main extension and counter-extension. In the first case in which this treatment was employed, the seton was retained many weeks, and the patient recovered the perfect use of his limb. My belief is that the late Mr. Liston was in error when he advised that it should always be withdrawn in a few days, for the reason that it will hardly have sufficient time, in such a case, to excite the requisite degree of inflammatory action. 7. Excision of the ends of the fragments, an operation devised and first performed in 1760, by Mr. White, of England. Such an operation should never be resorted to without due deliberation, and until after the failure of the more ordinary and simple means. To say nothing of the difficulty of its execution, it is by no means devoid of danger; indeed, it has not unfrequently proved fatal. A very free incision is made through the soft parts down to the ends of the broken bone, which are then brought out at the wound, and retrenched, either with a stout knife, a saw, or a pair of pliers. Sometimes the mere removal of the cartilaginous crust is sufficient for the purpose, an object which may be easily accomplished by scraping. Finally, there are some other modes of procedure, chiefly modifications of some of the preceding, which will come up in the regular lectures, and which need not, therefore, be specified on this occasion. I have given you this outline of the local treatment of un-united fracture for the two-fold purpose of showing you what may be done under such circumstances, and of affording you some idea of the genius and fertility of this particular branch of surgery; for no where do the labors of professional men appear to greater advantage, or in a more striking point of view.

Case 3.—*Traumatic Neuralgia.*

The patient, an Irishman of the name of Madden, aged 60 years, a laborer, of tolerably temperate habits, has had a local pain on the right side of the scalp, just behind the coronal suture, near the top of the head, for thirty years. He recollects that he received a slight hurt on that part of the head some time before the pain made its appearance; but of its precise character he is, at present, unable to give any satisfactory account. The pain is generally

periodical, coming on usually about the middle of the day, and continuing, with more or less severity, for six, eight, ten, or even twelve hours, when it gradually disappears, leaving the patient comparatively comfortable until the next attack. Occasionally it is entirely absent for several successive months. Exposure to cold and wet, irregularities of diet, the use of ardent spirits, or derangement of the digestive apparatus, invariably aggravate the local distress, and often cause an attack of it. The pain commonly begins at a small circumscribed spot, hardly as large as the end of the finger, exquisitely tender on pressure, and slightly œdematous. During its progress it extends over a considerable portion of the scalp, and, not unfrequently, even down the neck and shoulders. The general health has long been impaired; the tongue is constantly coated; and the bowels are habitually constipated, requiring the frequent use of medicines. In fact, the man has all the symptoms of a dyspeptic. It is proper to observe that he often complains of neuralgic pains in different parts of his body, that he has occasional attacks of fever, and that he is, now and then, troubled with partial deafness. No chilly feelings precede or accompany the local distress.

The patient having taken some purgative and anti-periodic remedies without any very material benefit, I cut down through the tender and painful spot in the scalp as far as the cranium, and introduced into the incision a small, smooth pebble, for the purpose of inviting a free discharge of matter. After the foreign body had been retained about a week, it accidently fell out of the wound, which, as the distress was measurably relieved, was accordingly permitted to heal. The patient, meanwhile, and for sometime subsequently, was kept under the use of purgatives and anti-periodic remedies; the latter consisting of three grains of quinine, the twentieth of a grain of strychnine, the twelfth of a grain of arsenious acid, and the eighth of a grain of extract of strammonium, with a small quantity of morphia, made into a pill, and repeated every five hours. Under this treatment, the general health greatly improved, and in a few weeks the man went home, nearly entirely free from the local pain which had so long harrassed him.

In commenting upon this case, it may be stated that pain of the scalp, as it presented itself in the person of Madden,—local, cir-

cumscribed, and attended with tenderness of the part and derangement of the general health,—is often occasioned by external violence, as a contused, lacerated, or punctured wound, and that, what is remarkable, it sometimes does not appear until months and even years after the occurrence of the injury. A sort of latent irritation is set up, followed, in many instances, by a deposit of lymph, and consequent thickening and induration of the affected tissues. When great and long-continued, this irritation may give rise to various nervous symptoms, as hemicrania, spasmodic twitching of the muscles of the face, partial paralysis of the limbs, and even convulsions. I recollect, among other cases, that of a young gentleman, who, in consequence of an injury of the head, produced by pitching against a brick-bat, used to suffer in the latter way for a long time. When I first saw him he was about seventeen years of age, during the last ten of which he had experienced great local pain and tenderness of the scalp on the right side, near the antero-superior angle of the parietal bone. The patient was slightly stunned by the accident, and the little wound emitted a few drops of blood; but he recovered in a few minutes, and resumed his wonted play as if nothing had happened. At the end of five days, however, he was seized with severe convulsions, which recurred afterwards, at variable intervals, gradually impairing his mind, and rendering him exceedingly irascible and unmanageable. The attacks continued for many years, and were attended by frequent paroxysms of head-ache and fits of the most horrible despondency. The cephalalgia was generally periodical, and was always accompanied by exquisite tenderness of the scalp, often extending over the greater portion of the head, and being particularly severe and distressing on the affected side. The case at length became desperate, and the parents of the young man had serious thoughts of sending him to some lunatic asylum. It was about this time that I was requested to see him in consultation with the family physician. I found, as already intimated, a very tender spot on the upper and fore-part of the side of the head, scarcely as large as a twenty-five cent piece, free from swelling, but so sensitive that the slightest pressure with the point of the finger occasioned the most intense pain and suffering. There was no evidence of depression of the bone or disease of the osseous

tissue. The general health was considerably deranged, and the youth was gloomy and morose. Satisfied that the disease depended upon chronic thickening of the pericranium, I at once suggested, as the most probable means of relief, a free division of the scalp at the seat of the local distress. The propriety of this view being concurred in by the medical attendant, the operation was accordingly performed a few days afterwards, the incision being a little over an inch in length, and carried down through the whole thickness of the pericranium. A dossil of lint being inserted, a compress and bandage were applied, and the patient was restricted to light diet. In a few days the wound began to suppurate, and after the discharge had been maintained for some weeks, the parts were permitted to cicatrize. Long before this time, however, the bad symptoms had subsided, the tenderness was entirely relieved, and the patient, afterwards, gradually regained his general health and the use of his mental powers.

Finally, it may be remarked that, while a free division of the affected part is the most prompt and efficacious remedy, other means may occasionally be resorted to with a prospect of temporary, if not permanent, relief. I may instance, in particular, the application of leeches and blisters to the affected part, the establishment of an issue with the Vienna-paste, and the inunction of mercurial ointment, in union with veratria and belladonna. When the disease depends upon the presence of an indurated cicatrice, or thickening of the pericranium, the proper remedy will be excision. In all cases great attention should be paid to the patient's diet, bowels, and secretions. The best internal means, besides purgatives and alterants, are emetics, and quinine and iron, in combination with arsenious acid, strychnine, and extract of strammonium, in the proportions above mentioned.

CASE 4.—*Fatty Tumor; Excision; Cure.*

JOE, a negro, aged thirty-nine years, from Boyle county, Ky., was sent to me, early in November last, by Mr. KNOX, a member of the class, on account of a fatty tumor situated in the right groin. From a memorandum made by Dr. EVANS, it appears that the tumor was first noticed, about thirteen years ago, as a small nodule some distance above Poupart's ligament. Its growth was gradual

but persistent until about two years ago, when it became much more rapid, and the morbid mass is now upwards of eight inches in length, by more than fifteen in circumference. It is of a flattened conical figure, and hangs off from the thigh, when the body is inclined forward, like a gourd, its attachment being by a comparatively small and rather narrow foot-stalk. To the hand it imparts a doughy, semi-elastic, consistent feel. The surface is smooth and uniform, and there is no enlargement of the subcutaneous veins, or unnatural color of the skin. The tumor is free from pain, and causes no other inconvenience save what results from its weight and bulk. There is no disease of the neighboring lymphatic ganglions; and the general health is very good, the man being stout and robust. From a careful examination of the history of the case, I was induced to conclude that the tumor was a fatty one, and accordingly so expressed myself to the medical class.

As the patient was perfectly well, I did not deem it necessary to spend much time in preparatory treatment. Having kept him upon light diet for several days and given him a dose of purgative medicine, I placed him upon the table of the amphitheatre at the University, and by a rapid dissection removed the tumor, taking care to make my incisions several inches above its point of attachment, in order that I might thus obtain a sufficient amount of integument to cover the wound. Scarcely an ounce of blood was lost in the operation. Knowing that but a few minutes would be occupied in the removal of the tumor, I gave the patient no chloroform. The edges of the wound were approximated by three points of the interrupted suture and adhesive strips, supported by a compress and bandage, carried round the hips and thighs. I was kindly assisted in the operation by Dr. T. G. Richardson, the demonstrator of anatomy in the University.

Owing to the peculiar mobility of the parts involved in the operation, only a portion of the wound healed by the first intention. Notwithstanding this, however, the patient was well enough to return home in less than two weeks, having recovered without a single accident.

The tumor, after its removal, was found, as had been previously announced, to be of a fatty nature. It was made up of masses of

adipous matter, connected together by cellular tissue, and varying in size from a cherry to a pullet's egg, of a pale yellowish color, and of the ordinary doughy, semi-elastic consistence. In short, its characters could not possibly have been more distinctly defined.

In connection with this case a few remarks may be made respecting the nature and habits of this form of morbid growth.

The fatty tumor is quite common, and should, therefore, be well understood by the practitioner. It may take place in any part of the body, with the exception, perhaps, of the palm of the hand, and the sole of the foot, the fingers and toes. I have seen it, however, more frequently about the back, shoulder, and neck, than in any other region. The upper eye-lid is also a common seat fo it. Sometimes, but more rarely, it occurs in the orbit of the eye, in the walls of the abdomen, in the perinæum, the pudendal lips, and underneath the tongue, and even in the substance of this organ. Large masses of this kind occasionally form in the internal cavities of the body, as in the omentum and mesentery, and around the kidneys. In a specimen which I removed, some years ago, from the body of an old man after death, the growth weighed three pounds, and the late Prof. HORNER, of Philadelphia, refers to one, removed from a bullock, which filled a common sized wash-tub. When the viscera are loaded with masses of fat, they impart to the abdomen that projecting rotundity, known by the name of "pot-belly," so well described by Prince Henry, in his address to Fallstaff, as "a huge hill of flesh," "a globe of sinful continents." In the chest large masses of fat sometimes envelop the pericardium, and, by compressing the heart and great vessels, induce palpitation, and even fatal syncope, as in the interesting case narrated by SENAC.

The number of fatty tumors varies, in different cases, from one to several hundred. In general, they are solitary, or, at most, there are only two or three, occupying different regions of the body, or grouped more or less closely together. In a medical gentleman, aged 23, who attended our lectures some years ago, I counted upwards of two hundred, from the volume of a small pea up to that of a large marble. They all had a doughy, inelastic feel, and nearly all were of a globular shape; a few were slightly flattened, or compressed. They were situated principally on the

fore-arms, the inside of the thighs, the loins, abdomen, and pectoral muscles, the latter of which were literally covered with them. None existed on the head, neck, and upper part of the back. The general health was good, and the tumors had been first observed about sixteen years previously. During two severe attacks of acute disease, accompanied with great emaciation, many of them entirely disappeared. To satisfy myself of the true nature of these tumors, the gentleman permitted me to remove one, about the size of a filbert, which proved to be composed entirely of fatty matter.

In their volume, these tumors vary from that of a small pea to that of an adult head. Sometimes, indeed, they are much larger, measuring many inches in diameter, and projecting a great distance beyond the surface. My friend, Dr. Ray, of Evansville, removed one a short time ago which weighed nearly forty pounds, and which, had it been permitted to increase, might have acquired a still greater bulk. Cases are recorded where the weight was nearly sixty pounds. My own practice has never furnished me with such enormous growths.

In their shape, fatty tumors are generally somewhat globular, but as they augment in volume they are liable to become elongated, and to assume a pyriform, gourd-like, or pediculated configuration, as in the case just operated upon. These changes in their form no doubt depend upon their weight, by which they are gradually dragged out of their original shape, as well as position. For the same reason they sometimes shift their seat, descending from the point where they originally appeared to one below it, perhaps several inches distant. Thus, a fatty tumor which was developed in the groin, has been known, in time, to pass down between the scrotum and the thigh. This migratory tendency, which is interesting as a matter of diagnosis, is most common in those parts of the body which are abundantly supplied with loose cellular substance, and in those cases in which the tumor has a large bulk and a pediculated attachment.

Fatty tumors are always, according to my observations, invested with a capsule, by which they are connected with the surrounding structures, and through which they obtain their vessels, nerves, and absorbents. This covering is not a new formation, produced

by inflammatory action, but is the result simply of a condensation of the circumjacent cellular substance; and hence it varies very much in its appearance in different cases and in different circumstances. In the early stage of the affection, and especially when the tumor is diminutive, it is, in general, very thin, soft, elastic, and transparent; but in cases of long standing and large size, it is always more or less dense, firm, resisting, and of a fibro-cellular, or distinctly fibrous texture. Its thickness ranges between a mere film and a layer of several lines in depth. External pressure, especially if long continued, and the pressure also of one part of the tumor upon another part, no doubt exert an important influence upon the anatomical character of this investiture, and serve to adapt it to the varying circumstances of the shape and bulk of the morbid growth. The adhesion of the capsule to the skin is sometimes remarkably close, requiring great care in separating it.

Attached to the inner surface of this covering are numerous processes, which dip into the interior of the morbid growth, separating it into lobes, lobules, and granules, until the component tissues are resolved into their ultimate elements. These processes are usually very delicate; but occasionally, as when there is a hypertrophous condition of the fibro-cellular element, they are quite dense and tough, forming distinct bands, of a whitish or greyish color, between the different structures.

Fatty tumors do not receive much blood, at least not as a general rule; and hence they seldom bleed much when they are extirpated. It is only when they are of large size, or when they grow very rapidly, that they are likely to be very vascular. The capsule and its processes serve to conduct the vessels into the interior of the tumor, and to direct, as it were, the distribution of their branches and ramifications. As the morbid mass is always free from pain, and is tolerant of the rudest manipulation, it may be concluded that it receives very few nerves. Its absorbent vessels are also few in number. It may also be inferred that, inasmuch as the general health is usually unimpaired throughout the whole progress of the affection, however long it may continue, it does not possess any important sympathetic relations with the general economy.

It has been already stated that fatty tumors are most common in the external parts of the body, and it may now be added that they are most frequent in the subcutaneous cellular tissue. They are not, however, confined to this substance; for in many cases they send prolongations around the muscles, tendons, fasciæ, vessels, and other structures. Thus a fatty tumor of the neck has been known to extend deeply between the trachea and œsophagus, or to dip in between the carotid artery and jugular vein, or to pass down behind the sternum and clavicle into the chest. A fatty growth of the wall of the abdomen sometimes extends into the cavity of that name; and, on the other hand, such a tumor occasionally begins in the subperitoneal cellular tissue, and ultimately descends through the inguinal canal, or some abnormal outlet, down into the scrotum, thus simulating hernia of the groin. It must be obvious that all such arrangements, which, however, are fortunately rare, must greatly embarrass both our diagnosis and our attempts to remove the morbid mass.

Fatty tumors are soft, doughy, and semi-elastic;—properties which, in general, enable the surgeon readily to distinguish them from other morbid growths. Their boundaries are usually well-defined, especially when they are superficial or pediculated. Sometimes, however, they are insensibly lost in the surrounding parts, being spread out beneath the skin, and sending processes among the muscles, or their fasciculi. In many cases they have an irregular, lobulated surface; while in other, and perhaps in the majority, they are perfectly smooth and uniform. There is no enlargement of the subcutaneous veins, no disease of the skin, no pain, and no tenderness on pressure. The progress of the tumor, in fact, is quite indolent; and the only inconvenience which the patient experiences is what results from its weight and bulk. The general health is usually perfect. These circumstances, with a careful consideration of the history of each case, will commonly serve to distinguish fatty tumors from other morbid growths, whether benign or malignant in their character.

Fatty tumors are liable to inflammation, suppuration, ulceration, and even gangrene. These events, however, are very infrequent, and are usually induced by mechanical pressure, by caustic applications, and by inefficient nourishment, in consequence of a loss

of vascular and nervous supply from the pendulous or over-grown character of the morbid mass. In a tumor of this kind, about the volume of an orange, which I removed, many years ago, from the top of the left shoulder of a girl, of eighteen, at Cincinnati, the ulcer had a remarkably foul, unhealthy aspect, with thin, everted edges; the pain was at times quite severe, and the discharge was of a sanious nature, intermixed with globules of fat. Various attempts had been made, but without success, to heal it up, and no cause could be assigned for its formation. The general health had been a good deal impaired, and for some time past there had been irregularity of the menstrual function. The ulcer was included in the incisions, and a speedy recovery was the result.

When matter forms in such a tumor it is rarely that it is collected into a distinct abscess. Of this occurrence, the most remarkable instance of which I have any knowledge is related by Mr. Brodie.

ABERNETHY* saw osseous matter deposited within the substance of a fatty tumor; and a specimen of a similar kind is contained in my private collection. The osseous matter, in this case, consists of a small nodule, not larger than half a marble, very hard, and of a pale yellowish color. AUVERT has described the same change in the sixteenth plate of his splendid Surgical Illustrations. Mr. PAGET refers to a similar specimen in the Museum of St. Bartholemew's Hospital, London.†

Again, such tumors occasionally undergo a sort of fibrous, or cartilaginous degeneration, not uniformly, but at certain points of their extent. Nodules, varying in size from a hazel-nut to a pullet's egg, may thus be formed, having a firm, characteristic consistence, more or less movable, and contrasting singularly with the other structures. Finally, they occasionally contain cysts, filled with various kinds of substances, as oily, serous, or gelatinous. The walls of the cysts may be very thin and transparent, or thick, opake, and perhaps even partially calcified, as in the instance mentioned by PAGET.

It is not easy to determine how fatty tumors are developed.

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* Surgical Works, vol. 2, p. 300.

† Lectures on Surgical Pathology, vol. 2, p. 100. London—1853.

The difficulty which surrounds the subject is not cleared up by assuming that they are merely hypertrophies of the natural adipous tissue. This is probably the fact; but we cannot explain why such an occurrence should take place at one point rather than at another, or why, indeed, it should happen at all. The exciting cause of the morbid growth has sometimes been traced to external injury, as a blow, contusion, or steady mechanical compression; but in the generality of cases no reason whatever can be assigned for its production.

Both sexes are liable to this formation, but whether in an equal degree or not, is not ascertained. It is most common in young adults and middle-aged persons, being rarely developed in the very young or very old. Animals are also subject to it, and in them it occasionally attains an enormous bulk.

Not much need be said here respecting the medical treatment of this class of morbid growths; for, so far as our knowledge at present extends, there is no article of the materia medica, or combination of articles, that is capable of arresting its progress, or causing its removal. If the reverse is occasionally the case, it is only as an exception to the rule, and nothing else. The instance of Mr. Brodie,* in which that gentleman succeeded in removing a large mass of fat from a man's chin and neck, by the free and persistent use of the solution of potassa, may be regarded as a memorable example of unexpected success. He commenced with half a drachm of the fluid three times a day, and gradually increased the dose to a drachm. At the end of a month there was a sensible diminution in the volume of the tumor, which steadily continued as long as the medicine was persevered in. Sometime afterwards Mr. Brodie substituted the tincture of iodine, which had just then come into use, and the tumor again increased. Finding this to be the case, the alkali was resumed and continued, off and on, until the tumors were almost entirely dispersed. Altogether, the man took an enormous quantity of the medicine. The case of Mr. Brodie is a solitary one; at all events, I am not aware that the same happy effects have been realized from this remedy by other practitioners.

* Select Surgical works, p. 202. Philadelphia—1847.

All local applications are equally unavailing. This is true alike of steady and systematic compression, of mercurial and other inunctions, and of frictions with stimulating liniments and embrocations. The absorbent vessels in these tumors are few and feeble, and this is probably the reason why all remedies of this description are so utterly valueless as curative agents.

From the above remarks we may learn how useless it is to spend our time in idle and unprofitable attempts to cure these deposits by constitutional and topical means. They teach us that the only reliable remedy is the knife, and that the sooner this is resorted to the better it will be in all cases where the tumor is in an ingravescent state, and likely, by its pressure, to interfere with the functions of important organs. As long, on the contrary, as it is small and harmless, causing no inconvenience or disfigurement, it may as well be let alone.

The manner of excising such tumors may be gathered, in some degree at least, from the case already described. Any diseased skin that may exist should be removed along with the morbid mass, which should be enucleated by a rapid dissection, care being taken that not a particle of the deposit be left behind; otherwise a reproduction might readily take place. When the tumor is superficial the operation is easily performed and soon over; but when it is deep-seated, or when it sends processes among the surrounding structures, it may be one of great difficulty and perplexity, requiring the most consumate skill for its successful execution, and the most thorough knowledge of the anatomy of the parts. For the reasons already mentioned, the operation is sometimes nearly bloodless. I have, indeed, seldom found it necessary to apply any ligatures, whatever might be the volume of the tumor.

CASE 5.—*Onychia Maligna.*

The present case is one of a deeply interesting nature, both on account of the obscurity of its origin, its real pathology, and its obstinate and intractable character. It consists in ulceration of the root of the nail of the fore-finger of the right hand, and constitutes what Mr. WARDROP has described as onychia maligna. The disease, in the patient before us, was first noticed about four

months ago as a small, elongated blister at the sides and back part of the nail, filled with serous fluid, very painful, and surrounded by a reddish inflammatory circle. Upon the rupture of the vesicle, which happened in a few days after, a narrow, superficial, angry looking sore was exposed, followed by an oozing of thin, ichorous fluid, seemingly irritating to the adjacent parts. The ulcer gradually extended in depth and diameter, until it at length involved nearly the whole dorsal surface of the last phalanx, destroying the nail and giving the end of the finger a peculiar bulbous appearance, as if it had been forcibly compressed laterally, at the same time that its superior surface has a hollow, cup-shaped arrangement. A portion of the nail still remains attached at its root, but the connection is very slight, and will probably be entirely destroyed in a few days. The nail is of a dark color, and of a soft, friable consistence. The edges of the ulcer are elevated, thin at some points and thick at others, jagged, and of a purple hue; the surface, as already stated, is depressed, or, as it were, scooped out, and incrusted with yellowish aplastic lymph. Here and there is a small unhealthy granulation, exquisitely sensitive, and evidently unable to make any progress towards reparation. The discharge is occasionally quite abundant, and is generally of a very fœtid character. The bulbous extremity of the finger is very hard, tender, inflamed, and of a dusky, purple complexion.

The child, who is seven years old, is rather thin; and the general health, although much better than it was three weeks ago, when the case first came under my observation, is far from being good. The appetite, however, is much improved, and she rests much better at night. At present, and indeed for the last fortnight, there has been hardly any pain in the part. Prior to that period, the suffering was so intense and constant that the child found it difficult to obtain any sleep at night. The pain was sharp and burning, and generally accompanied with a sense of throbbing. It is worthy of notice that the features are denotive of the strumous diathesis, the complexion being very delicate, and the eyelashes unusually long. The extremities are habitually cold.

Of this affection, which was first described in 1814, by Mr. Wardrop, an eminent English Surgeon, in the fifth volume of

the Medico-Chirurgical Transactions of London, I have seen only four well-marked examples in a practice of twenty-five years, and hence I conclude that it is quite rare. The first case occurred in this city in 1843, in a lad, aged eight years, the son of a Mr. Clark, at that time a resident in Grayson street. It involved the great toe of the left foot, and had made such extensive ravages that the affected part had been pronounced as incurable by the professional attendant, by every means, except the knife, to the employment of which, however, the parents had fortunately refused their consent. The disease had been in progress for upwards of eight months; the nail was nearly completely destroyed; the ulcer had a foul, dirty appearance, with thin, everted edges; the toe had the characteristic bulbous shape; and the discharge was thin, sanious, and excessively offensive. The general health was greatly undermined; for the lad was pale and emaciated, had no appetite, and was unable to sleep, owing to the local pain, which sometimes amounted to exquisite torture.

The second case was that of a boy, aged ten years and a half, the son of a Mr. AALEXANDER, late of this city, now of Cincinnati. It occurred last autumn a year ago. The disease, which occupied the right thumb, had made considerable progress before my attention was called to it, and the parts exhibited the peculiar features already more than once alluded to. Excessive pain in the ulcer, the gradual destruction of the nail, an abundant fœtid discharge, and great disorder of the general health, with loss of sleep and appetite, were the leading symptoms in the case. The constitution was naturally feeble, and every thing betokened the existence of a strumous temperament.

The third case was the one described at the beginning of my remarks. For the fourth, I am indebted to Dr. JOHN BARTLETT, of this city, who kindly brought the little patient, an orphan girl, aged four years, before the University Clinique, on the 17th inst. The child, although represented to be in good health, looks pale and delicate, and it is very apparent, from the state of her complexion, eyes, hair, and eye-lashes—which are of unusual length—that she is strumously inclined. Dr. BARTLETT states that about three months ago she received an injury upon the end of the left ring finger, which was followed by inflammation, and, at length,

by ulceration of the root of the nail. A large portion of the nail, which is of a dark, dirty, brownish color, still remains, but its attachments are very feeble, and will be entirely destroyed in a few weeks, if not sooner. The ulcer has a foul, excavated appearance, the discharge is thin and ichorous, and the end of the member has the peculiar clubbed or bulbous form. The part is perfectly free from pain, nor has there been any pain in it, at any time, save what was produced by the topical applications employed for the relief of the morbid action. About a week before the child was presented at the Clinique, Dr. BARTLETT thought that the ulcer was in a healing condition; but upon inspecting it again, a few days after, he noticed that it exhibited all its former unpromising features. No constitutional treatment had been resorted to; locally, use had been made successively of nitrate of silver, sulphate of copper, and the nitric acid lotion, without any special benefit.

From the history of the above cases, I am inclined to believe that the disease under consideration is connected with a peculiar scrofulous state of the system, but in what this state consists, or how it is induced, we cannot, of course, determine. Be this as it may, it is always exceedingly obstinate and intractable, frequently very painful and distressing to the patient, and exceedingly perplexing to the surgeon. Its duration varies from a number of weeks to many months. Sometimes the malady continues until it destroys, not only the nail and soft tissues beneath and around it, but bone and everything else. The diagnosis is always easy, particularly after the affection has made some progress. The inflammatory line or circle at the root of the nail, succeeded by the development of one or more vesicles, and the exposure, on the rupture of these vesicles, of a foul, irritable ulcer; the spreading tendency of this ulcer, and finally, its excavated appearance; the discolored and sloughing condition of the nail; the sanious, eroding, and fœtid discharge; and, above all, the singularly bulbous form of the distal extremity of the affected member, whether toe or finger; leave no doubt in regard to the true nature of the case. Once seen, such a state of things can never be forgotten.

Onychia maligna is most frequent in children from the age of five to twelve years. In the cases already described, the ages of

the patients were, respectively, four, seven, eight, and ten and a half years. Mr. WARDROP states that, while the affection is most common in early life, he has often seen it in adults. My distinguished friend, the late Professor JOHN B. BECK, of New York, who, many years ago, published an account of five cases of onychia maligna, found the ages of his patients to be, respectively, five, six, ten, ten, and twenty-three years. Two were males and three females. The disease in one of the cases occupied the great toe, in one the thumb, and in the other three the finger. In three of the cases the ulceration was preceded by external injury; in the remainder it commenced without any assignable cause. In all the instances that have come under my own observation, save one, it seems to have had a spontaneous origin. In Dr. Beck's cases, none of the patients complained of much pain; in three of mine, on the contrary, the pain was a constant and prominent symptom. Mr. Wardrop observes that the pain is sometimes very acute, but that the disease is more commonly indolent, and accompanied with little uneasiness. He also remarks that he has seen the ulcer more frequently on the thumb than on any of the fingers and toes.

The term malignant, as applied to this disease, is ill-chosen; because, while it does not express its true character, it is apt to lead to erroneous notions respecting its curability. That the malady may, if permitted to have its own way, eventuate in the total destruction of the affected part, is unquestionable; but such a result is not to be regarded, in any case, as a necessary consequence of the malady, and may, almost invariably, be prevented by the timely interposition of proper remedies. Moreover, when once removed, the disease never returns, as happens in the various forms of malignant affections. The malady is obstinate and rebellious, distressing and annoying to both patient and practitioner, but never malignant. It is important that this point should be well understood; for it has happened, again and again, that a thumb, finger, or toe, thus situated, has been cut off, when, if the nature of the lesion had been properly comprehended, it might have been saved. I would as leave think, in ordinary cases of this kind, of amputating a man's neck for an obstinate ulcer of the lip, chin, or nose, as to remove a finger because it was affect-

ed with onychia maligna. It is only when the part has been rendered perfectly useless, as it may be when all its component structures are implicated, that the idea of an operation should be at all entertained.

The treatment of this disease is, I think, on the whole, sufficiently well understood. It consists, as was originally suggested by Mr. WARDROP, in the administration of mercury, to the extent of slight ptyalism, which should be carefully maintained for several successive weeks, or even a full month, if the case is at all obstinate. The best form, according to my observation, is calomel, in the dose of from one to two grains every twelve hours, in combination with a suitable quantity of opium, to prevent it from producing griping and too much action on the bowels. As soon as it is found that there is slight tenderness of the gums, with an increased flow of saliva, and change in the odor of the breath, the mercury should either be omitted, or given in small and less frequent doses. As the effect subsides, the medicine should be again exhibited, and thus it should be continued as long as there seems to be good reason for its employment. Great care should be taken, in all cases, especially when there is a decidedly strumous diathesis, not to carry the remedy to the extent of severe ptyalism. Iodide of mercury and blue mass are also eligible forms of exhibition; but my experience teaches me that calomel is the best.

It need hardly be stated that great attention should always be paid to the bowels and the secretions, both of which are frequently much disordered in this apparently trifling affection. None, however, but the milder purgatives should be employed, such, principally, as are of a vegetable nature. Where the secretions are much deranged, a full dose of calomel, followed in five or six hours by a suitable quantity of castor-oil, cannot fail to be of essential service.

Tonics are indicated where the patient is feeble, and the tendency to reparation tardy and imperfect. Among the best articles of this class are, sulphate of iron and quinine, or iron with some of the vegetable extracts. The diet, in this case, should also be nutritious, but perfectly plain and simple. Where the debility is considerable, and it is evident that it interferes with the reparative

process, recourse should be had to wine, wine-whey, brandy, or milk punch.

When there is much pain, preventing sleep, and depriving the patient of appetite, anodynes will be indicated, and should be given in full doses; which, in this, as in most other affections, are far preferable to small and frequently-repeated doses. Where there is dryness of the skin, a good form of exhibition is Dover's powder, or a combination of morphia and antimony.

The local treatment should be of the mildest and most soothing description. When the pain and discoloration are very great, marked benefit may be expected from the application of a few leeches to the end of the finger, or round the root of the nail. Frequent immersion, for fifteen or twenty minutes at a time, of the part in tepid water, slightly impregnated with common salt, has sometimes a very happy effect, apart from its cleansing properties. In case there is much fœtor, a little liquid chlorinate of soda may be added to the water, or a few drops of this fluid may from time to time be sprinkled upon the dressings. As a constant application, I have found nothing to answer as well as an elm-bark poultice, or a linseed cataplasm, with a piece of thin gauze interposed between it and the affected surface, to prevent the poultice from adhering. When the ulcer is very irritable, it may be touched, once a day, with a weak solution of nitrate of silver, or lightly with this article in substance. In all the cases under my charge, I have derived marked benefit from the ointment of the nitrate of mercury, in the proportion of half a drachm to the ounce of opiate cerate. The black and yellow washes have also been serviceable; and various astringent and detergent lotions, as those of zinc, copper, lead, and nitric acid, might, doubtless, be advantageous, though I have nothing to offer in their favor from personal experience. Mercurial fumigations have been highly recommended; I have made repeated use of them in the different stages of my cases, and have received no benefit from them.

It is a good plan to remove the diseased nail as fast as it becomes detached; for its pressure, under these circumstances, not only prevents the contact of the dressings, but is often a source of real suffering. The greatest possible gentleness should be em-

ployed in removing it, and also in applying the dressings. It is scarcely necessary to add that the hand should be kept perfectly quiet and in an easy, elevated position.

When the granulations have become healthy, the best applications are the opiate cerate, either alone or in union with a little of the ointment of the nitrate of mercury, and the use of the roller, the pressure of which greatly aids in reducing the swelling, and in restoring the part to its natural form, which, however, it never completely attains, owing, perhaps, to the imperfect reproduction of the nail. Exercise in the open air will materially contribute to the patient's recovery.

Editorial Department.

After a temporary suspension of our Journal, occasioned by the destruction of the office by fire at which it was published, we have the pleasure at length of presenting to our readers the first number of a new series, in a style every way improved. The two numbers still due, for November and December, will be issued with the least practicable delay, and we have the promise of the Publisher, that the work shall hereafter appear punctually at the beginning of the month. It is with a feeling of great satisfaction that we announce that we have secured a corps of contributors, whose experience and readiness as practitioners and writers insure us an ample supply of original matter. Our colleagues in the University of Louisville are pledged to the support of the Journal, and in addition to these we have many friends in the profession who have promised us contributions.

The *Western Journal* is now the oldest journal of medicine published in the Valley of the Mississippi, and, regarded as a

continuation of Dr. Drake's Journal, which was merged in it, the oldest in the United States. We believe, of all our brethren of the medical press in our country, we were earliest to occupy the editorial chair. When our present enterprise was set on foot fourteen years ago; there was no medical journal in progress in all the States west of the mountains, and it seemed to be loudly called for by the profession. Since that time the number projected has been equal to one a year; but notwithstanding this unprecedented multiplication, we believe the friends of our Journal would not willingly see it suspended. It is with this persuasion, and in the hope of being able to serve and advance our profession, that we continue in a post from which twenty years of laborious service would seem to entitle us to an honorable discharge.

As the result of a good deal of experience and inquiry, we have determined to reduce somewhat the size, and materially the price of our Journal. Heretofore, for twelve numbers of 92 pages, the subscription has been $5 per annum; it is now only $3 for twelve numbers of 80 pages.

This number is sent to many physicians who are not subscribers. If they are satisfied with the work, they will please forward their names to the Publisher, who alone is interested in its pecuniary concerns.

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION.—VOL. VI.—1853.

From a cursory examination of the volume of Transactions of the American Medical Association, for 1853, it appears to us to compare favorably with the volumes that have preceded it. Having been but recently received, we have not, as yet, been able to give to the perusal of the several papers which it contains, that time and attention which they claim. We are not, therefore, prepared to offer, at present, opinions formed after a critical examination of their merits respectively. This we may do hereafter. But, in the mean time, we should be glad to exert any influence within our power to extend the circulation of the work. Every

American practitioner of medicine, as it seems to us, should feel bound to procure it merely as an act of encouragement to the Association in her efforts in behalf of a national medical literature. But the several volumes have intrinsic recommendations, which should secure for them a place in the library of the intelligent physician. They comprise a mass of information pertaining to the various departments of medical science, which renders them highly valuable for reference, and a convenient means of keeping up with the progress of scientific investigations. It is not very creditable to the medical profession of this country that the American Association, in the distribution of the previous publications, was met with only a moderate patronage; and we learn with regret and mortification that in the State of Kentucky the encouragement, thus far, has been quite insignificant. We are credibly informed that, while in the small State of Connecticut there are some sixty subscribers to the Transactions, in the State of Kentucky there are not over a dozen! We trust our Kentucky readers will agree with us that the honor of the State is in some measure involved in this matter, and will find in this consideration an additional inducement to add their names to the list of the patrons of the annual publications.

The present volume, in size, with one exception, is equal to any of its predecessors. It comprises 869 pages. In typography, the appearance of all the volumes is uniform; but an important improvement was adopted at the last meeting, viz—furnishing them bound in cloth, in the place of mere paper covers.

We subjoin the table of contents, by which our readers can form some idea of the value of the work:—Minutes of the Sixth annual meeting of the Association, and the annual reports of the Treasurer and Committee of Publication. Address of Beverly R. Wellford, President of the Association. Report of the Committee on Medical Education, Z. Pitcher, M. D., chairman. Report of the Committee on Medical Literature, N. S. Davis, M. D., chairman. On the Agency of the Refrigeration produced by upward Radiation of Heat, as an exciting cause of Disease, Gouverneur Emerson, M. D., chairman. On the Results of Surgical Operations in Malignant Diseases, S. D. Gross, M. D., chairman. On the Epidemics of Tennessee and Kentucky, W. L. Sutton, M. D.,

chairman. On Acute and Chronic Diseases of the Neck of the Uterus, CHAS. D. MEIGS, M. D. On the Nature of Typhoidal Fevers, HENRY F. CAMPBELL, M. D., chairman. On Coxalgia, or Hip Disease, ALDEN MARCH, M. D. On the Surgical Treatment of Morbid Growths within the Larynx, GURDON BUCK, M. D. On the Sympathetic Nerve in Reflex Phenomena, HENRY F. CAMPBELL, M. D. Prize essay—On the Surgical Treatment of certain Fibrous Tumors of the Uterus, heretofore considered beyond the resources of art, WASHINGTON L. ATLEE, M. D., of Philadelphia, Pa. Prize essay—On the Cell, its Physiology, Pathology, and Philosophy, as deduced from original observations, to which is added its History and Criticism, WALDO I. BURNETT, M. D., of Boston, Mass.

This volume, and the preceding volumes,* may be ordered by addressing the Treasurer of the Association, D. F. CONDIE, M. D., or through Lea & Blanchard, Booksellers, &c., of Philadelphia.

ELEMENTS OF HUMAN ANATOMY—GENERAL, DESCRIPTIVE AND PRACTICAL. BY T. G. RICHARDSON, M. D., *Demonstrator of Anatomy in the Medical Department of the University of Louisville, and one of the attending Surgeons to the Louisville Marine Hospital.* Philadelphia—Lippincott, Grambo & Co., 1854. 8 vo., pp. 734.

A work on Anatomy by the accomplished Demonstrator in the University of Louisville, will be cordially welcomed by his numerous pupils and friends, not alone from feelings of personal interest, but because they know his ability to prepare an acceptable and useful treatise on the science to which he has been so long and zealously devoted. We feel safe in the prediction that the volume just issued will not fall short of their expectations.

We do not profess to have given the volume a thorough and critical perusal, but from what examination we have bestowed upon it, and guided by the opinions of those much more compe-

* Excepting Vol. IV, nearly all the copies of which were destroyed by fire.

tent than ourselves to judge of the merits of a publication of this character, we believe that it will prove creditable alike to the author, as an accurate student of anatomy, and a clear, systematic instructor in that important province of medical education, to the University with which he is connected, and to our native medical literature. We do not doubt that, in proportion as its merits are ascertained, it will be adopted as an elementary text book in the different medical institutions of our country, and thus obtain a wide-spread circulation.

The plan and scope of the work are enunciated in the following quotation from the preface:—"In adding another to the numerous list of books on anatomy already before the profession, the author claims no credit beyond that of a common observer, whose experience, in the dissecting-room and amphitheatre, has suggested what he believes to be a slight improvement on the plan pursued by the majority of writers on this branch of physico-medical science. This improvement consists, in the first place, in the union of general, descriptive, and practical anatomy in the same volume; the intention being to render it unnecessary, on the part of the student just entering upon the study, to provide himself with separate books on these different branches; secondly, in the arrangement of the section devoted to practical anatomy so as to secure the greatest possible economy of material; and, lastly, in the substitution of English for Latin terms, wherever this appeared to be practicable and judicious."

In mechanical execution the work is excellent. The subjects are illustrated by numerous engravings in wood, which are unusually fine in distinctness of representation. We congratulate the author on this his first bibliographical achievement, trusting that hereafter similar occasions for congratulation may be often repeated. The work is for sale by Maxwell & Co.

DEATH OF DR. COOKE.

DR. JOHN ESTEN COOKE, for many years connected with the Lexington Medical School, and subsequently with the Medical Institute of Louisville, died at his residence in Trimble county, on the 20th of October, in the seventieth year of his age. Dr. Cooke had long been in declining health, and believed himself to be the subject of pulmonary consumption. The state of his health had rendered him incapable of pursuing his profession for several years before he died, and he had retired to a farm on the banks of the Ohio river.

Dr. Cooke's father having been a physician, it is probable that his mind was turned at a very early period to the profession of medicine, in which he was carefully and thoroughly educated. He took his degree as doctor of medicine, at the University of Pennsylvania, in 1805. Dr. Cooke had acquired a high reputation as a practitioner and writer before he was invited, in 1827, to the Chair of Theory and Practice in Transylvania University. A paper which he wrote on "Autumnal Bilious Fever," published in the American Medical Recorder, in 1822, evinced reading, observation, and uncommon powers of analysis, as well as a boldness of practice which was greatly esteemed at that day. At the time he was elected to the Professorship in the School at Lexington he had made considerable progress in the organization of a Medical School at Winchester, Virginia. He came to Lexington as the successor of DR. DRAKE. His first course of Lectures was one of the most remarkable ever listened to by a class of Medical Students. Discarding all systems of Nosology, Dr. Cooke presented a classification of his own. He had a theory which he believed explained the phenomena of nearly every disease, and his lectures were taken up with an exposition of his theory and the practice founded upon it. The theory was a very simple one, and his practice as simple:—that disease depends upon venous congestion, and is to be cured by remedies which act upon the liver. This is a statement of his views of the pathology, not only of fevers, cholera, dysentery, &c., but of menorrhagia, dysmenorrhœa, and most

of the complaints of females. A view of pathology so simple could not fail to be attractive to his pupils, and it is safe to say that few teachers have exerted a greater sway over medical theory and practice than was exercised by Dr. Cooke for many years in the valley of the Mississippi. His mind was eminently a logical one, and as honest in its convictions as forcible in its logic. His array of facts was strong, and his hearers had little disposition to resist the force of an argument which conducted them to so satisfactory a theory, and a practice which, in the hands of their teacher, had succeeded so well. It was Dr. Cooke's happy mental constitution to be thoroughly convinced of the truth of whatever he adopted. Whether on matters of theology or of medicine he had no half-formed opinions; with him it was entire belief or utter rejection. Few men have ever entertained so undoubting a faith in the certainty of medicine; and this was probably a main element of his success in carrying conviction so generally to the minds of his students. They saw at once that he was perfectly honest, and this predisposed them strongly in favor of his views. They were averse to rejecting doctrines which so ingenuous a man held so firmly and enforced by arguments so fair and convincing.

In his intercourse with men, as in his public instruction, this simplicity and candor was Dr. Cooke's ruling trait of character. Honesty, perfect ingenuousness, unswerving integrity, this it was that marked his conduct on all occasions and singled him out among men. He was not fluent as a lecturer; he made not the slightest pretensions to eloquence, and in his manners he was blunt and sometimes abrupt, but the kindness of heart which was visible beneath this unpromising exterior, and the air of sincerity which pervaded all that he said or did, caused those around him to forget the manner, and compelled belief in his statements. He had true warmth of character, and in his attachments he was decided, ardent, and steady. We have alluded to the strength and clearness of his convictions. He was a true Christian. Not a doubt appeared ever to disturb the deep serenity of his religious faith.

Dr. Cooke was a voluminous writer. Besides his treatise on Pathology and Therapeutics in two large volumes, he wrote copiously for the Transylvania Journal of Medicine, of which he was one of the editors, and also employed his pen occasionally upon

theological subjects. His writings are a model of clearness, directness, and simplicity of style, and those on medicine abound in valuable facts and original observations.

When the writer of this brief notice read to the medical class in the University of Louisville, a little more than a year ago, a history of the medical department of that Institution, all the men who had held professorships in it were still alive. Three of the number have since passed away. Of these DR. DRAKE and DR. COOKE were of nearly the same age. They were students in the same class in Philadelphia, in 1805. DR. CALDWELL was at that time, a teacher of note, and a writer widely known. There is something impressive in the demise of these eminent men, who had sustained to each other, at different periods of their lives, the relations of colleague, and of pupil and preceptor, in such quick succession. They have left behind them few American physicians who have occupied so large a space in the professional mind of our country.

UNIVERSITY OF LOUISVILLE.

We are sure it will be gratifying to many of our readers to learn that this Institution is in a flourishing condition. The Law and Medical Departments, the only two yet in operation, have large classes. The number of students in the latter is greater than it has been for four years, and in the former there has never been, we believe, a larger class. The quiet and gentlemanly deportment of the students in both departments is a subject of general remark with the citizens of Louisville. They are students indeed, and not merely in name, and are making the most of their opportunities for professional improvement.

Professor FLINT expects to sail for Europe immediately after the close of the present session, and will purchase for the Medical Department additional means for illustration in the several branches of Medicine.

The Western Journal

OF

MEDICINE AND SURGERY.

FEBRUARY, 1854. NEW SERIES. VOL. I.—No. 2.

ART. I.—CASES OF PERICARDITIS MASKED BY DELIRIUM.

BY AUSTIN FLINT, M. D., PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE UNIVERSITY OF LOUISVILLE.

IN the winter of 1849–50, a case of pleuro-pneumonitis, complicated with pericarditis, and accompanied by a peculiar form of delirium, the local affection, so far as concerns the rational symptoms, being remarkably latent, came under my observation;—a report of which was published in the Buffalo Medical Journal.* The fact that pericarditis is occasionally so masked by cerebral symptoms that the latter (without knowledge of this fact) are likely to engross the attention of the practitioner, leading him to regard the affection as seated within the head, has but recently been pointed out. Dr. WATSON, in his printed lectures on practical medicine, speaks impressively of this fact. But in the late work of Dr. GEORGE BURROWS, on disorders of the cerebral circulation, is a fuller consideration of the subject. Dr. B. gives an account of its literature, adducing a number of cases which have been communicated, within a few years past, by different writers. In connection with the report already referred to, the reader will find extracts from that portion of Dr. BURROW's work which pertains to the subject.

* No. for April, 1850. Vol. V., page 505.

Since that report was made, two cases illustrating the coincidence of delirium and pericarditis have fallen under my observation.

One of these cases was observed at the Buffalo Hospital of the Sisters of Charity, in 1851. The notes of this case, at the time I am writing, are not available, and an account of it must therefore be given from memory. It will not be difficult to do this sufficiently for all practical purposes, as the patient was seen by me but once. At my morning visit at the Hospital, I found that, on the evening previous, a patient had been admitted greatly prostrated, and in a state of delirium. Nothing was obtained relative to the previous history of the case. The patient had not spoken since his admission. He lay with his eyes open, fixed, most of the time, in one direction, taking no notice of things or persons around him, making no reply to questions. A peculiarity in this case was, that the patient frequently ejected saliva with force and without any regard to its destination. His bed, and the floor in proximity thereto, were covered with spittle. Persons in proximity to him were in danger of receiving it on their persons, not from design, but because it was scattered at random, the patient not changing his position, but lying constantly on the back. Under these circumstances I deferred an examination of the case, and at my next visit I found the patient had died. The circumstances pertaining to the mode of dying I am unable to state from recollection. At the time I was observing the patient, the idea of pericarditis did not occur to me, but in thinking of the case afterward, a resemblance in the character of the delirium to that in the case of Crotty, formerly reported by me, led me to suspect this disease; so that, before the autopsy was made, I ventured to predict that it would be discovered. My prediction proved to be true. Recent pericarditis existed, and the heart was preserved as a specimen of that affection. With respect to the condition of other organs, I am unable to state without reference to the record made at the time.

Another case, illustrating the occurrence of pericarditis masked by delirium, has recently been under my observation at the Louisville Marine Hospital. In this instance, much to my surprise, considering the gravity of the symptoms, the patient emerged

from the delirium, and, at the present moment, is convalescent, with, as I suppose, a heart permanently damaged. An account of this case I propose to give, with as much detail as shall seem advisable, taking the facts from the daily records at the bed-side.

JOHN MAHER, aged 24, Irishman, laborer, admitted October 24, 1853. On attempting to obtain the previous history of the case, Dr. DICKINSON, resident physician at the Hospital, found him too dull to give any connected account either of past or present symptoms. So far as he could gather any information from his disconnected replies to questions, he thought his disease was intermittent fever, and directed twenty grains of the sulphate of quinia to be given in divided doses during the following twenty-four hours.

At 8 or 9 o'clock, P. M., he had chill and rigors, followed by febrile movement and sweating.

On the 25th he appeared delirious, frequently getting out of bed, and appearing to be bewildered. He talked but little. During the night of this day, he got up several times without any apparent object, and was taken back to the bed by the ward attendant. Once, after getting out of bed, he fell to the floor apparently from weakness.

On the morning of the 26th, he was found to be in a state of unconsciousness. On this morning, for the first time, my attention was directed to the case. The description recorded by me at the bedside was as follows:—The patient has lost one eye. The other eye remains open. He takes no observation of persons or things around him. The pupil is dilated. He winks frequently, and always when the finger is brought into close proximity to the eye. He maintains the dorsal position. Remains taciturn, and cannot be roused to reply to questions, or take notice of anything. The skin is bathed in perspiration, sweat standing in drops on the face. Urine has been emitted freely in bed. The salivary fluid collects and escapes at the angles of the mouth. He does not swallow when drink is placed in the mouth. Respiration thirty-six per minute, and somewhat labored, but rhythm normal. Pulse one-hundred-and-eight, and moderately full.

The impulse of the heart extends over an area of from two to three inches in diameter; the lower boundary being about half an inch below the nipple. The nipple is nearly the centre of the

area of impulse. The impulse is forcible. There is dullness on percussion, below the lowest point of impulse, and over an abnormal area in the precordia, the precise extent not determined. The heart sounds are unattended by *bruit* of any kind.

A blister, six by six, was directed to be applied over the precordia.

The foregoing is all that was recorded at this period in the history of the case, relative to physical signs. The examination was not so complete as, afterward, I could have desired. With reference to physical explorations, too, I had occasion, for some time afterward, to regret that the precordia had been vesicated, inasmuch as they were precluded by the condition of the surface. I may add that at this time, and for some time afterward, I supposed that the nature of the affection would soon be determined by an autopsy. The death of the patient was daily expected. To the reader practically acquainted with the subject of physical diagnosis in its relations to pericarditis, it is submitted how far the physical signs already stated indicate the existence of that affection. The demonstrative physical proof of its existence, viz: a friction sound, was not discovered. The physical signs existing at a subsequent date will be presently stated.

Oct. 27.—The patient remained through the afternoon of the 26th inst., in the same condition as that described in the morning record; but at nine in the evening, he had a partial return of consciousness. He was tolerably quiet during the night, occasionally changing his position. This morning he has been very restless, tossing about, and throwing himself from the bed, so that it became necessary to transfer him to a bed on the floor. He frequently groans and mutters. He has taken neither food nor drink since yesterday. Fluids introduced repeatedly into the mouth were neither swallowed, nor voluntarily ejected, but remained in the mouth until they ran out. No dejection, but urine passed freely in bed. At the time of the daily record he lay with his eye open, frequently winking, the pupil dilated. The eye did not close on approximation of the finger till the eye-lashes were touched. The respiration was labored, the expiration somewhat prolonged. The skin was cold. Pulse scarcely appreciable.

The blister on precordia produced good vesication.

Oct. 28.—Patient was quiet during the night. He has taken no drink or nourishment since the 25th inst. He has lately resisted the introduction of fluids into the mouth by closing firmly the teeth. On making efforts to cause him to swallow, at the time of the examination, he resisted, but he swallowed a portion of the liquid introduced into the mouth. The skin on this morning was warm; the pulse more developed than on yesterday, and eighty per minute. Respirations twenty-eight, and somewhat labored; inspiration abnormally intense, with dilation of *alæ nasi*. Occasional moaning with expiration. No dejection. Has urinated freely in bed.

Spirit and water, and beef essence prescribed, to be given as freely as practicable.

Oct. 29.—Marked improvement, the patient lying tranquil, eye opened, taking some notice of persons and things around him. Respiration normal. Skin warm and mellow. Pulse tolerably developed, soft, and not accelerated. During the latter part of preceding night he talked much, and loudly, frequently shouting. Took food this morning, viz. tea and bread. Had a dejection, and urinated freely—both in bed. Was not rational. Did not reply coherently to questions. This peculiarity was noticed, viz. he directed his vision to some point, now a portion of the pillow, and now his hand, protruded his tongue toward it, and then slowly grasped it with his lips and teeth. This he repeated several times during the examination.

The precordia was quite sore from the blister, preventing physical exploration. At the inferior portion of chest, posteriorly, the percussion sound was clear.

Treatment had consisted of diffusible stimulus, carbonate of ammonia, and the essence of beef. The spirit and ammonia were suspended on this day, and nutritious diet continued.

Oct. 30.—Through the previous day and night, the patient, most of the time, was restless, throwing himself about, getting up, and calling names of different persons. On this morning his expression was idiotic. His eye was open, and he looked about with a vacant stare. He resisted, moderately, attempts at a physical exploration. Twice he said, while the record of symptoms was being made, "I beg pardon." These words were uttered sponta-

neously, with great slowness and hesitancy. He did not reply to questions, and was taciturn the greater part of the time. He did not utter any connected sentences. Protruded his tongue very slowly when requested. No dejection, but free urination in bed. Took food and drink when presented, eating very slowly, and looking at the attendant with an expression devoid of intelligence.

The blistered surface in precordial region prevented a satisfactory physical exploration. The action of the heart, denoted by the sounds, was irregular. A point of impulse is neither seen nor felt, but, owing to soreness from the blister, palpation could be employed but imperfectly.

Clearness of resonance on percussion existed at the lower part of the chest, posteriorly, on both sides.

Marked tenderness on pressure (irrespective of the blister) existed at the lower part of the chest in front.

Skin cool. Pulse forty eight, and quite feeble. Respiration thirteen.

Diffusible stimulus, in small quantities, was directed, with nutritious diet. No other treatment.

Oct. 31.—Had an attack of convulsions in the night time, and another at 10, A. M. Pulse sixty six. Respiration sixteen. State of intellect not materially altered. Could not be made to protrude the tongue.

Nov. 1.—Attacks of convulsions recurred three times during the preceding day, and once in the night. During these attacks the upper and lower extremities, and the muscles of the face, were convulsed with considerable violence. They were about an hour in duration. There was no foaming at the mouth, nor did the attendants notice any marked disturbance of the respiration. Urine passed in bed. No dejection. He frequently got out of bed, and appeared as if he fancied persons were in pursuit of him intending violence. He endeavored to break the walls of the room, and his hands were accordingly placed in a restraining apparatus. Protruded his tongue when requested, and kept it protruded till told to withdraw it.

Talked and shouted incoherent words much of the night.

Respirations not accelerated, and normal in rhythm. Pulse seventy-eight, and feeble. Resisted efforts to examine the precordia.

Nov. 2.—Restless night, rolling about the room, and shouting. Copious dejection in bed. Asks for nothing, but takes food and drink readily when presented. Pulse ninety, and quite feeble. Skin cool. Respiration twenty.

Nov. 4.—On the 2d inst. he continued wakeful, shouting, with occasional manifestations of hilarity. But on this day he became quiet, and slept most of the time. Took food and drink readily, and asked for bread. Did not reply to questions generally, but, in answer to how he felt, said he felt well. Protruded tongue after repeated directions to do so, as before, very slowly. Pulse one-hundred-and-eight. Skin warm and moist.

The blistered surface was nearly well, but tenderness on pressure existed, not only over the sore surface, but in the neighborhood.

Nov. 6.—Patient rational, replying to questions readily. Said he felt well, except that he had some pain in the left breast above the nipple, sharp, and felt on taking a full inspiration.

Nov. 7.—*Physical Signs.*—Over precordia transversely through the line of nipple, flatness on percussion as far as the nipple. Vertically, dullness distinct, but not marked, over second rib, flatness from third rib.

Impulse extremely feeble, being just appreciable between fourth and fifth ribs, about half an inch below, and the same distance to the right of a vertical line passing through the nipple.

Nov. 8.—Reported feeling quite well, without pain, but had had pain the previous night in left side over the third rib. Placed his hand in that situation when requested to indicate the seat of pain. Said that the pain was short, and particularly acute when he coughed. Had no recollection of the events of the previous fortnight. Stated that he was ill for two days before he came to the Hospital, and that he suffered chiefly from pain in the left breast.

Physical Signs.—Percussion-sound clear over both sides, exclusive of precordia, and the respiratory sounds on both sides healthy.

The heart impulse between the fourth and fifth ribs, half an inch below the level of the nipple, and the same distance to the right. Impulse at the examination distinctly seen and felt. The point of impulse not materially changed by assuming the sitting

posture. Action of heart quickened by this change of position. Notable dullness, amounting nearly to flatness, below third rib. Above third rib percussion-sound clear.

Flatness transversely from sternum of nipple, and dullness to the left of nipple. Breathing movements on both sides presented no disparity.

No heaving impulse in precordia. Sounds of heart normal.

Diarrhœa was somewhat troublesome at the date of this record.

Nov. 15.—Improvement in intellect and strength had continued. He was now up and dressed, and able to walk about the ward.

Physical Signs.—A movement seen in the precordial region, extending from the third to the fifth ribs. The visible movement not uniform at different points of the space over which it was apparent. There appeared to be an impulse between fourth and fifth ribs, and simultaneously, a visible depression (not impulse) between the third and fourth ribs, and just below the fifth rib. By palpation no impulse was appreciable, except between fourth and fifth ribs, nearly on a level with the nipple, and half an inch to the right. In this situation, the impulse was marked but not strong. Above, between third and fourth ribs, and below, between fifth and sixth ribs, there was no appreciable impulse, but evidently a *drawing in*, with the action of the heart, of the intercostal spaces.

On percussion, flatness existed transversely to about half an inch to right of nipple, three and a half inches from median line, and marked dullness to about an inch to the left of the nipple. Vertically, on line falling about an inch to the right of nipple, marked dullness over third rib, and flatness over fourth rib, and extending to lower part of chest. No friction, or any abnormal sounds discovered on auscultation.

At the time I am writing this report, Nov. 25, the patient is still in the Hospital. He complains of nothing but weakness. His appetite is good, and bowels regular.

I have given the history of this case with a minuteness which may, to some, seem tedious, in order, *first*, that the reader may be able to judge of the correctness of the diagnosis. The interest and importance belonging to the case, depend, of course, on there being sufficient evidence of the existence of pericarditis. The

points on which the diagnosis are based, to recapitulate briefly, are as follows:—Increased area of dullness in precordia, together with abnormal degree of dullness, or flatness; elevation and diffusion of the impulse; irregularity and feebleness of the heart's contractions, and, at the time of convalescence, in connection with persistence of the elevated impulse, depression in the intercostal spaces with the heart's action. I am free to admit that the results of more complete exploration during the progress of the affection would be desirable. But the condition of the precordia, and the state of the patient, rendered it difficult to make satisfactory examinations at that time. Farther efforts for this object, however, would have been made, had it seemed probable that the case would have terminated so favorably as it has done. In connection with the physical signs denoting pericarditis, it is to be considered that acute pulmonary disease was excluded by the absence of marked signs, as well as symptoms pertaining to the lungs. The symptoms (in distinction from signs) pointing to pericarditis were pain in precordia, which was the prominent symptom before the patient entered the Hospital, and was experienced after his consciousness returned, together with tenderness in the same region, evidently not dependent on the blister; and, during the severity of the disease, notable oppression or embarrassment of the circulation.

Assuming the diagnosis to be correct, a *second* object of the report is to describe fully the cerebral symptoms, which were the prominent features in the case, and were well calculated to mask the cardiac affection. If the reader will take the trouble to refer to the case previously reported by me, he will find a striking resemblance in the character of the delirium in that case, to that of the case now reported; and in both the distinctive traits are those observed in the cases referred to by Drs. Watson and Burrows. The peculiarities are so striking, that, after having observed a case, the practitioner is afterward led, at once, therefrom to recognize the disease. The characters of the delirium are, stupor and wakefulness combined, the patient lying with the eyes opened, and fixed in one direction, not replying to questions, and insusceptible of being roused by any exertions for that end; this state followed by paroxysms of active delirium, the patient shouting,

and apparently laboring under the fear of harm, with occasional manifestations of hilarity.

A striking point of resemblance in the present case, to that of CROTTY, formerly reported, is that each appeared to imagine he had committed some offence for which he was to be punished. In the case of CROTTY, this was shown by his uttering, at one time, in reply to questions of any kind addressed to him, the word "guilty," and afterward asking why he was not hanged. In the case of MAHER, among the first words spoken were, "I beg pardon," which were repeated several times, and nothing else said.

The delirium which characterized both cases was entirely different, so far as my observations go, from that belonging to other affections attended by mental aberration. It was not like the delirium of delirium tremens, of continued fever, or of encephalitis; and, if the peculiarities which distinguished these two cases exemplify an uniform kind of delirium occurring in certain cases of acute pericarditis, its character is so unique and striking, that it should not only suggest the disease, but is entitled to be considered presumptive evidence of its existence.

In view of the consideration just stated, I trust that I shall not be thought to have devoted, in this article, too much space to the report of a single case, more especially when it is considered that similar cases are rarely met with.

Art. II.—A CASE OF INVERSION OF THE UTERUS.

BY LEWIS ROGERS, M. D., PROFESSOR OF MATERIA MEDICA AND THERAPEUTICS IN THE UNIVERSITY OF LOUISVILLE.

Mrs. Yengst, a German woman, aged forty years, the mother of seven children, all natural births, was taken with the pains of her eighth labor at 9 o'clock, A. M., November 29th, a German midwife in attendance; the labor gradually progressed and was successfully completed, by the birth of a healthy living child, at six o'clock, A. M., November 30th. The placenta and membranes with an umbilical cord twenty-two inches long were expelled very soon after the child; the membranes spontaneously gave way just before delivery, the amount of amniotic liquor not noticed. The labor though rather tedious was not productive of any very marked exhaustion, and the patient was represented to have borne up under the effort, with strength and firmness; the only circumstances worthy of note were moderate hemorrhage throughout its entire progress, coagula of blood passing from time to time, and the coiling of the funis thrice around the child's neck; the hemorrhage was not sufficient to produce material exhaustion, but excited some apprehension on the part of the midwife.

The patient was delivered in the recumbent position, on her back, and the child was neither suddenly nor violently expelled. The placenta was discharged without any assistance from the midwife. Profuse hemorrhage followed the delivery of the placenta, succeeded by faintness and great prostration; the midwife ignorant of the nature of the difficulty and unprepared and unwilling to act, immediately dispatched the husband for me. I saw her at three-quarters past six o'clock, three-quarters of an hour after the completion of the labor. Her condition was then one of extreme prostration; blood had been flowing from her, "like water from a pump," to use her own language; her face was blanched and anxious; hands and feet cold; pulse rapid and

feeble; respiration disturbed, with a sense of a want of air; the bed was flooded with blood, though the midwife had been occupied in removing a portion of it to a tub which stood near at hand.

Having administered brandy very freely, as immediate death seemed to be impending, I proceeded to inquire into the nature of the difficulty. Upon placing the hand upon the hypogastrium, instead of finding the uterus hard, globular and contracted as it should be, it passed deep into the cavity of the pelvis and discovered the fundus depressed, and presenting a cup-like form. This state of things at once suggested inversion of the womb, as the probable difficulty, a suggestion confirmed by finding a large, rough, bleeding mass filling up the vagina and protruding slightly beyond the vulva. The diagnosis being obvious, the patient somewhat revived by the brandy, and appreciating the importance of prompt action, I attempted, at once, the reposition of the organ. This was easily accomplished, by embracing the inverted fundus between the thumb and fingers of the right hand, the most dependent portion resting upon the palm, and by gently and gradually pushing it up before them; it was returned with unexpected facility, the os uteri offering scarcely an appreciable resistance. The hand was carried into the cavity of the uterus and retained there sufficiently long to receive assurance of a complete restoration of the organ, and to recognize very decided contraction. Sixty drops of tincture of opium were administered in warm brandy and water, and I left the patient, very shortly after, in a satisfactory condition.

During the day of the 30th, and the following night, Mrs. Y. suffered slightly from after-pains, accompanied by moderate flowing; in the afternoon, nervous and vascular reaction ensued and ran quite high; she complained very much of palpitation of the heart. The after-pains and reaction were treated by opiates; under these and a properly regulated regimen, she gradually improved, presenting scarcely a symptom of uterine inflammation, and was discharged convalescent on the 8th of December. At the present date, 18th December, she has recovered sufficiently to walk about, and to resume her domestic duties, to a limited extent.

This case of inversion of the uterus is reported, not because it

presents any point of special interest or peculiarity, in connection with this rare form of accident, but as a contribution to the statistics of the subject, and as the basis of a few remarks in regard to its causes, symptoms, and treatment.

A very relaxed and uncontracted condition of the uterus is universally recognized as essential to the production of inversion; this state of the organ may be esteemed a requisite predisposing cause, whilst a considerable diversity of agencies may act as exciting causes.

Undue traction of the funis while the placenta is attached to the uterus is one of the most frequently assigned causes of inversion; when the accident occurs, improper management in this respect, on the part of the accoucheur is apt to be suspected. This cause is fully sufficient for the effect in a relaxed condition of the womb. The mere weight of a large and attached placenta, in a similar state of the organ, may also produce the effect, without traction of the funis. This may occur, even in the recumbent position of the patient, but is more likely to take place when she is somewhat elevated in the bed, or when she is delivered in a sitting position, as is common in some parts of the country.

It is not necessary that the placenta be attached to the uterus, in order that traction of the cord may produce inversion. When detached and pressing upon the os uteri, or detained in the vagina, it may excite, by reflex action, the abdominal muscles and diaphragm, to powerful contractions, sufficient not only to extrude the placenta, but also to force down the fundus of the uterus, the lower portion of the organ being, to some extent, a fixed point. This may occur, whether the funis be pulled upon or not, the mere pressure of a foreign body in the uterus and vagina being sufficient to excite the involuntary contractions of the abdominal muscles and diaphragm.

The introduction of the hand into the vagina and cavity of the uterus to search for the placenta will often suffice to produce a straining effort, on the part of the patient, adequate to force down a relaxed fundus. It is even possible that the impression left by the contact of the child with the nerves of the vagina may be reflected, for some length of time after the birth of the child, and sustain the action of the diaphragm and abdominal muscles.

Inversion has followed rude efforts to detach an adherent placenta, by the hand in the uterus; cases of this kind are reported. It is very possible that a similar result might be produced by the common practice of pressing and kneading the uterus, through the walls of the abdomen, for the purpose of soliciting prompt uterine contractions and the speedy expulsion of the placenta, in cases of inertia following delivery. Strong downward pressure directed upon the fundus of a very relaxed uterus would be fully adequate to cause such a dislocation, and the mere probability of such an effect suggests a caution as to this very prevalent mode of practice.

Assuming the erect position has been known to cause inversion, even many days after labor, and the accident has followed the effort connected with alvine evacuation.

A short funis has been assigned as a cause of inversion. A short funis with the placenta attached to the uterus in a state of relaxation would be sufficient to produce inversion, and is in effect the same as intentional traction of a long cord.

Violent expulsion of the child by which it is thrown far from the mother, and the cord thus made forcibly to drag the placenta, either attached or unattached to the uterus, is equivalent to a short cord in its influence upon the uterus, or to undue traction of a cord of the ordinary length. The same is true in reference to the coiling of the cord several times around the neck of the child, a condition which existed in the case of Mrs. Y.

A large quantity of amniotic liquor has been mentioned as contributing to inversion. When a large amount of this fluid is discharged from the uterus simultaneously with the child, the organ is left in a state indisposed to contraction; it is surprised into a condition of inertia. In cases of this kind, profuse homorrhage is very apt to ensue. A physical and vital state of the organ certainly exists here strongly predisposing to the facile action of the other causes assigned; apart from these, it is not easy to comprehend how a large quantity of amniotic water can act as a cause of inversion.

According to the statistics of inversion of the uterus, published by Dr. S. B. Hunt, in the November number of the Buffalo Medical Journal, "the liability to inversion decreases, but not to any

marked degree, with the number of children which the woman has borne." This result of Dr. HUNT's analysis is somewhat unexpected, and would scarcely have been anticipated, reasoning from the supposed predisposing cause of inversion. A relaxed and uncontracted state of the uterus seems to be an essential prerequisite to the efficient action of the immediate and determining causes, such as traction of the funis, a short funis, the erect position, abdominal pressure, &c.; it seems almost impossible for the body and fundus of the uterus to be thus displaced, when firmly contracted. Dr. WM. HUNTER, quoted by Dr. HUNT, remarks, "when a uterus is flaccid it is inverted as easily as the finger of a glove, but when it is hard, globular and contracted, it is as difficult to invert as a jack-boot." The question, apart from the testimony of statistics, resolves itself into the further question, whether this necessary flaccidity of the uterus is more apt to supervene after first labors, than in women who have had several children. General experience, which probably cannot be relied on so fully as the results of statistical analysis, would decide in favor of its more likely existence under the latter circumstances. After-pains, due to imperfect contraction of the womb, are very uncommon, with first labors, and become progressively more common, as a general rule, with each succeeding labor. Profuse *post partum* hemorrhage is more prone to occur in a woman who has had many children than after the birth of a first child, for the reason that contraction is not so prompt and vigorous. An analysis of a larger number of cases of inversion would possibly lead to a result somewhat different from that rendered by the interesting researches of Dr. HUNT. First labors are often very protracted, and patients frequently emerge from them very much exhausted; both general and uterine exhaustion may exist, a condition strongly predisposing to the easy operation of those causes supposed to be adequate to induce inversion. If it be true that this accident is more frequent after first and few labors, than in those who have borne many children, this may be the explanation.

Death may ensue very suddenly upon inversion; it may occur before reposition of the organ, though this be promptly attempted, and sometimes very shortly after; in either case it may result from nervous shock or exhaustion, indicated by syncope without

hemorrhage, by convulsions without hemorrhage, or there may be profuse hemorrhage superadding its depressing influence to the shock. Hemorrhage alone may be the cause of death, but writers insist, probably too exclusively, upon it as the urgent and immediately dangerous symptom of inversion; it is an important and alarming symptom, but the statistics of Dr. Hunt go to prove that "hemorrhage does not occur to any more fatal extent than does convulsion or syncope." Hemorrhage at once arrests and directs the attention of the intelligent practitioner to the condition of the uterus; examination detects the cause and leads to a prompt interposition of skill. Convulsion and syncope, from the influence of authority, are not so apt to suggest a suspicion of inversion, and thus lead to a prompt examination. In this way, it is possible that many of the chronic cases of inversion are brought about, the true nature of such cases not being detected in time for reposition. It is even possible that life has been lost in many instances, without the cause of death being ascertained. Syncope and convulsions, after labor, though unattended by hemorrhage, may often depend upon unsuspected partial or complete inversion.

Inversion of the uterus demands very immediate attention, not only on account of the threatening symptoms connected with it, but also from the fact that delay increases the difficulty of reposition, in proportion to its duration. All writers insist most emphatically upon the necessity of early attempts at restoration, and such necessity must be obvious. In a very short time, the os uteri contracts and girds the inverted portion so firmly that it cannot be moved. Time is considered so important an element in the successful management of this difficulty that it requires to be measured by minutes; the lapse of an hour may lead to a failure under the most skillful application of the art. Attempts to replace the organ after it has been inverted for several hours and even for many days, have not, however, always been fruitless. Dr. Hunt reports, upon reliable authority, success of the operation, after the expiration of twelve weeks, and at various periods earlier than this. These fortunate cases should not, if possible, be permitted to retard or control the action of the practitioner.

Notwithstanding the necessity which seems almost imperative for early efforts at reposition, regard should be had to the condi-

tion of the patient. The nervous shock or the hemorrhage may be such as to render it hazardous to subject the patient, at once, to the further depression necessarily incident to the operation of reposition. If the prostration be very great, some degree of reaction should be established, in the first place, by the liberal use of diffusible stimulants. The same rule of practice, in this regard, which guides the practitioner in the treatment of a case of placenta prævia with profuse bleeding and great prostration, should guide him in a case of inversion. No prudent practitioner would attempt delivery by version of the child, in such a case, until he had rallied his patient by the administration of brandy and laudanum in quantity adapted to the emergency. Though it be dangerous to wait, it is more dangerous to go on, under such circumstances, until some reaction has been restored by artificial stimulation. Surgical operations performed upon patients who have received severe injuries and great shock, immediately after the accident, often determine a fatal result, which might have been averted by a little delay.

While excessive prostration calls for some delay in the operation of reduction, a certain amount of it, with the accompanying relaxation, will materially facilitate success. In the case of Mrs. Y. the ease with which relief was afforded, was doubtless due, in some measure, to the relaxation caused by excessive loss of blood.

According to the analysis of Dr. Hunt, "the placenta is adherent in a large proportion of cases." The question as to the practice proper to be pursued, when this is the case, is an interesting and important one. An attached placenta materially embarrasses the reduction, while its detachment may lead to serious and fatal hemorrhage. On the other hand, if the placenta be returned, its subsequent detachment in the cavity of the uterus may also be attended by very free hemorrhage, and if not very carefully done, may again induce inversion. This latter result has occasionally occurred, and is mentioned among the causes of inversion. It rarely happens that when the placenta is adherent, it is entirely so; its precipitation must necessarily sunder some of its connections; when this is the fact, its complete separation and removal will facilitate and expedite the reduction to such an extent as fully to compensate for the increase of the bleeding surface. Though a

larger quantity of blood would certainly be lost from the whole placental surface of the womb than from a portion, in a given period of time, less time and less effort would be required to effect reduction with the placenta detached, and the amound of hemorrhage proportionably diminished. Practitioners of high authority differ in opinion upon this matter. DEWEES, GOOCH, BURNS, DENMAN and BLUNDELL, very emphatically advise the reduction, if possible, without previously detaching the placenta; BAUDELOQUE, CHURCHILL, BOIVIN, and MOREAU, pursue the other practice. Dr. ASHWELL thinks that the danger of hemorrhage is slight in those cases in which the contraction of the cervix hinders the easy reduction of the entire mass; the same contraction ligates the blood-vessels and prevents the loss of much blood. He concludes that "where the protruded organ and its attached placenta do not together make up a large tumor, and where the os does not constrict its upper part, reduction of the whole may be at once attempted; where, however, these favorable conditions do not exist, it will be wiser to ensure reposition by previous separation." The analysis of Dr. HUNT tends to the conclusion that the danger of hemorrhage has been much exaggerated. This gentleman favors separation as an important antecedent step of the operation. His experience and analysis of sixty-seven cases justify the following practical inferences on this point:—that the placenta "when adherent should be removed prior to any attempt to reduce the inversion; such removal of the placenta does not increase, but rather decreases the risk of hemorrhage, while it facilitates reduction; the returning of the placenta, in reducing the inversion, complicates the after treatment, and adds to the danger of hemorrhage, while it retards and renders difficult the reduction."

The case of Mrs. Yengst was unattended by any inflammation of the uterus. The organ was so speedily returned, and subjected to so little manipulation, that this is not remarkable. Cases of inversion seem, however, to enjoy a singular immunity from metritis, even when the reduction has been difficult; this is so far true that Dr. HUNT's analysis leads to the deduction that "there is little danger of metritis occurring after inversion."

Art. III.—UNVERSITY CLINIQUE—CASES AND OBSERVATIONS IN SURGERY.

BY S. D. GROSS, M. D., PROFESSOR OF SURGERY IN THE UNIVERSITY OF LOUISVILLE.

Case 1.—*Strumous Ophthalmia.*

The patient, a girl, aged ten years, always enjoyed good health until about three years ago, when she began to suffer from inflammation of the eyes, from which she has never been entirely free since. The prominent symptoms, all along, have been intolerance of light, larcrymation, and adhesion of the edges of the lids in the morning. There has been but little discoloration, at any time, so far as we can ascertain, of the eye; and the conjunctiva, this morning, is nearly of the natural aspect, except that there is here and there a straggling vessel, extending inwards towards the cornea, and carrying an undue quantity of blood, thus giving the membrane a slightly congested appearance. Each cornea retains its natural transparency, except at one or two small points, where there is some degree of haziness, dependent upon the presence of plastic matter. The opacity is quite superficial, and apparently of recent formation. The conjunctival lining of the lids is abnormally red, but in a less degree than in ordinary inflammation. It is free from granulations and hypertrophy. The edges of the lids are somewhat discolored and inflamed, and the Meibomian follicles are, perhaps, a little too much developed. No pus or mucus is seen upon the eye, or the lids, but along the eyelashes are a few thin, delicate, bran-like scales, so common in this form of inflammation. The patient, it will be noticed, is unable to throw her head up, so as to face the light; on the contrary, she screens the eyes with her hands, to prevent the light from falling upon the retinæ.

Such are the appearances and condition of the affected organs.

If you will now look at the patient, you will observe that she is in delicate health, and that she has light hair, blue eyes, with long lashes, a fair complexion, tumid lips, and a protuberant abdomen. The extremities are habitually cold, owing to the languid state of the circulation; the pulse is feeble and rather slow for one of her age, and there is a slight enlargement of several of the lymphatic ganglions on the right side of the neck, along the inner margin of the sterno-mastoid muscle. The bowels are regular, and the appetite and sleep good. I cannot ascertain that the mind is particularly sprightly. The child has evidently not had the advantages of education, which has been interrupted by the state of her eyes. Her parents are both living, and they appear to be free from scrofulous disease.

The *symptoms*, in this case, are, it will be perceived, of a mild character. In your practice, you will often meet with the disease in a much more severe and distressing form, attended with the greatest possible intolerance of light, excessive lacrymation, and violent pain. I constantly see cases in which the smallest ray of light is productive of the keenest suffering, and where, consequently, the patient uses every possible precaution to prevent its intrusion. For this purpose he generally, if he be a child, as is commonly the case, creeps into the darkest corner of his chamber, where he covers his eyes with his hands, or buries his head in a pillow, or, perhaps, in the lap of his mother. In this condition he often remains for hours, afraid to change his posture, lest the light should meet his eyes, and thus increase his distress. Children thus affected frequently experience an aggravation of all their suffering even from the light of the moon and of the stars, such is the excessive sensibility of the retina. Photophobia, then, or intolerance of light, is a most important diagnostic symptom in this affection, and one which no practitioner should disregard.

The lacrymation also exists in various degrees, under different circumstances, and in different individuals. In most of the cases that have fallen under my observation, it has been, at one stage or other of the complaint, a prominent symptom. Exposure to light and cold always increases it. The tears are usually hot and scalding, and their discharge is almost always attended with temporary relief.

Sometimes they are so acrid as to irritate the cheeks, causing them to becomered and swollen. The quantity of lacrymal fluid that is thus evacuated in the twenty-four hours may amount to several drachms.

It is rare, in strumous ophthalmia, to witness a copious discharge of mucus, or of muco-purulent fluid. Even when there are excessive photophobia and great lacrymation, it is seldom that there is much secretion of this description; often, indeed, not enough to agglutinate the edges of the lids. In this respect, scrofulous inflammation forms a striking contrast with some of the other varieties of ophthalmia, in which an immense quantity of mucus, or of mucus and pus, is discharged during the height of the morbid action, and even during its declension.

We have seen, in the patient before us, that there is but little redness in the conjunctiva. This is another important symptom in this variety of ophthalmic disease. In ordinary inflammation, discoloration of this membrane is a constant occurrence, and, generally, it is so conspicuous as to attract, at once, the attention both of the physician and of his friends. In strumous inflammation the vessels observe a straggling arrangement; they are seldom very turgid, and they extend from the circumference of the ball inward towards the cornea, where they are often congregated into little groups, or clusters, beautifully interlacing with each other. When the disease is violent, or of long-standing, the vessels occasionally pass over the cornea, either singly or in parallel lines, separated by narrow intervals. In ordinary ophthalmia the vessels are extremely numerous, and lose, so to speak, their individuality. In a word, there are hundreds where there is one in strumous ophthalmia.

Another important symptom in this form of ophthalmia is the existence of little minute vesicles at the margin of the cornea, occurring either separately or in groups, and varying in size from the smallest perceptible speck to that of an ordinary pin's head. They contain each a minute quantity of serum, and they are frequently encircled by a delicate plexus of vessels, which impart to them a very beautiful and interesting appearance. Their shape is globular, ovoidal, or angular. Sometimes they exist partly on the sclerotica and partly on the cornea. They are witnessed in

no other form of ophthalmia, and hence they are of great value as a diagnostic sign.

Strumous ophthalmia seldom continues long without giving rise to opacity of the cornea. This effect, like some of the others that have been mentioned, presents itself in different degress, from the slightest haziness of the part to complete opacity. In the latter case, it is always to be greatly dreaded, inasmuch as it is generally followed by total blindness. Its occurrence should always, if possible, be prevented, not only because it is liable to impair the sight, but because it must necessarily, when irremovable, disfigure the eye and injure the expression of the countenance. It need hardly be added that the immediate cause of this phenomenon is a deposit of lymph into the structures of the cornea.

Ulceration of the cornea is another effect of this variety of ophthalmia, and one, in fact, of frequent occurrence. It often begins at an early stage of the disease, and may proceed, with more or less rapidity, until it extends through the entire thickness of the membrane. The most common form of the ulcer is that of a dimple-shaped depression, with smooth and rather sharp edges, the surface looking as if a piece had been scooped out of it. Generally, the ulcer has a hazy appearance, but not unfrequently it does not differ in its color from that of the adjacent parts, and hence, unless the cornea is examined with great care, while the light is falling upon it at a particular angle, the disease may readily escape detection. Sometimes several such ulcers exist upon the eye, forming either simultaneously, or in pretty rapid succession. If permitted to progress, they occasionally extend through the different layers of the cornea, as far as the anterior chamber of the eye, the humor of which may perhaps escape through the abnormal opening, or, what is more common, the opening is closed up by the membrane of the aqueous humor, or even by the iris.

The pain attendant upon strumous ophthalmia is sometimes intense, while at other times it is very insignificant, if not wholly absent. In confirmed cases, it is always aggravated by the slightest exposure of the affected organ to the light, by medicated applications, by disorder of the bowels, by indulgence in eating, by rough contact, and by various other circumstances unnecessary to be mentioned. Occasionally it is situated deeply in the ball of

the eye, in the orbit, or at the base of the anterior lobes of the brain; sometimes it affects merely the lids and brows; occasionally it is most severe in the temple, forehead, or cheek. It may be sharp, shooting, or darting; dull, heavy, or aching; throbbing, or pulsatile; continued, or intermittent. Not unfrequently it assumes a neuralgic character, recurring periodically, like neuralgic pain in other parts of the body. Whatever may be its character, it is often so severe as to deprive the patient of sleep and appetite, and, indeed, of all comfort, for days and weeks together.

Strumous ophthalmia is rarely attended with any tumefaction of the lids. On the contrary, these structures usually retain their normal shape and size; but, in consequence of the excessive intolerance of light, they often present a remarkably drooping appearance, owing to the manner in which they are drawn over the eyes. When the disease is very protracted, the edges of the lids frequently become inverted, so that the ciliæ impinge constantly against the cornea, thereby inducing opacity of this membrane, great increase of pain, and additional inflammation. Although, in general, there is an absence of swelling of the lids, yet you will occasionally find this symptom to exist in a very marked degree. This is especially apt to happen in young children of a leucophlegmatic habit, with a thick upper lip, a tumid belly, and a soft flabby tongue, along with great derangement of the digestive apparatus. The whole system, in such cases, seems to be surcharged with strumous disease, which, in consequence, it is extremely difficult to dislodge from the eyes, which frequently become, so to speak, its victims.

In many cases there is an appearance of little vesicles on the cheeks, the inferior lids, round the nose, or on the lips. Their number varies from two or three to several dozens; their volume rarely exceeds that of the head of a small pin; and their contents are of a serous character. They have a whitish, almost pearly, aspect, are usually discreet, though often closely grouped together, and rest, as it were, upon a reddish base. These vesicles, according to my observation, are most common in children of a deeply-marked strumous habit, and they seldom manifest themselves until after the inflammation has made considerable progress.

I always look upon them with a feeling of misgiving in regard to the ultimate issue of the case; for their presence almost invariably denotes great obstinacy in the morbid action, and proportionate difficulty in effecting a prompt and permanent cure.

From the symptoms which have now been detailed to you, and from the appearance of the patient before you, you can hardly fail in establishing the *diagnosis* of this affection in any case that may fall under your observation. The excessive intolerance of light, the unwonted lacrymation, the absence of redness in the conjunctiva, together with the peculiar straggling arrangement of its vessels, the want of tumefaction, and the manner in which the lids are drawn over the ball of the eye, are signs which, once observed, can never be mistaken. Add to these phenomena the fact that the disease usually arises insiduously and without any assignable cause; the strumous appearance of the features; the coldness of the extremities; the tumid condition of the belly; the formation of vesicles on the face, and various other evidences of the strumous diathesis, and all doubt respecting the true nature of the case must instantly vanish. Indeed, no practitioner, unless he is culpably ignorant of ophthalmic diseases, can possibly commit an error of this kind.

The *prognosis* in this disease must necessarily be influenced by various circumstances, as, for example, the progress and extent of the morbid action, the state of the patient's health, and the nature of our remedies. In the milder forms and earlier stages of the malady, and under proper management, recovery of the affected organ may generally be reasonably predicted. But, under opposite circumstances, the worst consequences may, not unfrequently, be looked for. Ulceration of the cornea often extends, despite our remedies, to a great depth, and sometimes even to complete perforation; an event which is sure to be followed by permanent impairment, if not total loss, of sight. Superficial opacity, even when it is diffused over the greater portion of the cornea, is generally readily amenable to treatment, but when it involves several of the layers of the membrane, or when a considerable period has elapsed since its formation, or, in other words, when time has been permitted for the organization of the lymph, upon the presence of which the opacity depends, then the

case will necessarily be unpromising, both as it respects the future appearance of the eye and the amount of vision. It is fortunate that strumous inflammation of the eye rarely terminates in gangrene of any of the structures of this organ. Such an event, judging from my own observation, is extremely infrequent.

Of the exciting *causes* of this disorder very little is known with any degree of certainty. Very frequently its origin is ascribed to circumstances which have no agency whatever in its production. Sometimes it is directly traceable to external injury, as a blow, or a wound; in many cases it is apparently brought on by long exposure of the eye to a strong light, or by excessive fatigue of the organ, induced by reading, writing, or sewing. Suppression of the cutaneous perspiration is probably another, if not a frequent, cause of the disease. In young girls, I have occasionally seen it connected with irregularity of the menses, but whether as a cause or an effect has not always been apparent. Perhaps the most common cause of all is derangement of the digestive apparatus. Whenever the predisposition exists, as it always does in this affection, almost any thing, however trivial, may bring on an attack.

The disease may be limited to one eye, or it may occur in both, either simultaneously or successively. I do not deem it necessary here to insist upon the minute, and, as I conceive, unmeaning divisions and subdivisions of strumous ophthalmia laid down by systematic writers on the diseases of the eyes. Such an arrangement can subserve no useful purpose in practice, and would be entirely out of place in a course of elementary teaching. It is sufficient to say that, in nearly every instance of this complaint, there is an involvement of the conjunctiva and cornea, if not also of the sclerotica and iris, and not simply of the conjunctiva and cornea, or of one of these structures alone, as one might suppose by reading the books, and neglecting observation. In all cases, the retina is either inflamed or morbidly sensitive, as is evinced by the excessive intolerance of light attending the malady.

The age at which this disease occurs is an important circumstance in its history. It is extremely rare for it to begin after the period of puberty, and in no instance have I witnessed its outbreak in middle or advanced life. It is emphatically a malady of infancy

and early childhood. According to my observation, it rarely shows itself before the age of eighteen months, or two years. It occurs in both sexes, and in every rank and condition of life, but more frequently among the poor, ill-fed, and ill-clothed, than among the refined and wealthy. The offspring of the consumptive, and of those who have suffered from tubercular disease of the spine, hip, arachnoid membrane, and lymphatic ganglions, are most liable to be affected.

From what I have said to you, on various occasions, concerning the *treatment* of this variety of ophthalmic disease, it is not necessary that I should, this morning, enter fully into the consideration of the subject. You will recollect that the great remedy is quinine, either alone, or in union with other means. I am very certain, from my experience in the management of this disease, that quinine deserves to be placed at the head of all other remedies in this variety of scrofulous affections, and yet, in making this remark, it is necessary to introduce a proviso, lest you should be thereby induced to invest it with a degree of confidence to which, valuable as it is, it is not entitled. What I wish to say is simply this, that this medicine will, if properly administered, that is, with due regard to the patient's system and other circumstances, produce the most prompt and salutary effects; while, if these precautions be neglected, it will either prove useless, or even cause mischief. There are, according to my experience, two distinct classes of strumous eye-cases. In the one, the patient is pale and thin, with a languid circulation, and cold extremities; in the other, he is stout and robust, the cutaneous circulation is active, and the hands and feet are habitually warm. Other points of dissimilarity readily suggest themselves, but these it is unnecessary to point out, as the ditinction which I wish to establish must be sufficiently apparent. Now, to treat such cases alike would be a palpable absurdity. It is only by properly discriminating between them that you can expect to arrive at a satisfactory result, as it respects the employment of this important therapeutic agent. Hence, one practitioner will often mismanage a case which another, having more judgment and more experience, will promptly cure, the disease, perhaps, disappearing as if by magic. Let us pursue this idea a little farther.

In the commencement of my treatment in both forms of the complaint, I usually prepare the system by the exhibition of a moderately brisk cathartic of calomel and rhubarb, to clear out the bowels and correct the secretions. If I have reason to suspect that there is much acid in the alimentary canal, I generally combine with the cathartic a few grains of bicarbonate of soda. Thus, a most effectual beginning is made in the treatment of the disease. If the case comes under the first division, that is, if the patient is pale and thin, and is habitually laboring under cold extremities, I now begin the use of quinine, seldom alone, but commonly in combination with sulphate of iron, tartar emetic, and opium, in quantities proportionate to the age and strength of the individual. For a child of ten years, the age of our patient, a grain and a half of quinine, one grain of iron, the twelfth of a grain of antimony, and the eighth of a grain of opium, carefully mixed, will be a suitable dose, repeated every eight hours, or, if the symptoms are urgent, every six hours, or four times in the day and night. If pills or powders are offensive to the patient, the articles may be given in solution, substituting laudanum or morphia for the opium. Where there is a highly-marked strumous diathesis, I sometimes use the iodide of iron instead of the sulphate, but in most instances I give the latter the preference. Tartar emetic I rarely omit in any case, from the fact that I regard it as one of the most valuable remedies we possess in the treatment of scrofulous disease, both of the eye and of other parts of the body. It is a powerful controller of capillary action, and at the same time a most potent sorbefacient: hence it is particularly applicable in all cases attended with deposits of coagulating lymph. The opium allays pain, renders the eye more tolerant of light, and prevents the antimony from irritating the stomach and bowels. The quinine and iron, whether in the form of sulphate or iodide, are powerful tonics; they improve and invigorate the digestive organs, increase the fibrin and coloring matter of the blood, equalize the circulation, and thus augment the temperature of the extremities, and powerfully aid in correcting the strumous diathesis. By means of these remedies, assisted by a proper diet and due attention to the bowels and secretions, almost any case of scrofulous ophthalmia

may, in the class of patients under consideration, be effectually relieved, and that, too, in a comparatively short period.

My favorite cathartic, in these cases, is calomel in combination with rhubarb; to which I occasionally add a few grains of soda, especially if there is reason to suspect the existence of a redundancy of acid in the alimentary canal. In a child from three to five years of age, about two and a half grains of the former, to five or six of the latter, should be given every fourth night. Occasionally the calomel may be advantageously replaced by blue mass; or, in infants, by the grey powder.

When the skin is dry and inactive, the tepid bath may occasionally be employed, or, what is better, the body may be sponged once a day with tepid salt-water, followed by frictions with a coarse dry towel. Flannel should be worn next the surface, both in summer and winter; and the greatest attention should be paid to the preservation of the temperature of the feet. Where they are habitually cold, they should be plunged, twice a day, for a few minutes at a time, into cold water, and then well rubbed with a dry cloth. It is a great mistake, in such cases, to bathe the feet in warm water, with a view to the restoration and maintenance of their temperature.

In the second class of cases, where the general health is apparently but little impaired, where the countenance is florid instead of being pallid, and where the extremities are, for the most part, warm, the quinine is most advantageously conjoined with sulphate of magnesia and tartar emetic, in the form of the saline and antimonial mixture. The following is the formula which I commonly employ under these circumstances:—

℞.	Quininæ sulph.	gr. xxv.
	Magnesiæ "	ʒi.
	Antim. et potassa tartr.	gr. j½.
	Aquæ destillatæ.	ʒii.
	Syr. zingib.	ʒi.
	Tinct. opii.	gtt. xxx.
	Acid. sulph. ar.	gtt. xxv.
	M.	

Of this mixture, which, considering its ingredients, may be re-

garded as an exceedingly elegant one, the dose is about one drachm for a child four or five years of age, repeated every four, five or six hours. If it induce vomiting, or nausea beyond a few minutes, it should be diminished. When the inflammation is very severe, I often omit the quinine until the disease has assumed a subacute character, and in that case also I occasionally take blood freely from the arm, or by leeches from the anterior part of the temples, within an inch from the outer commissure of the lids. In the strong and robust, iron, in every form, is totally inadmissible. The diet, too, must be more restricted, and more active purgatives are required. Indeed, the treatment should be strictly antiphlogistic, as much so as in inflammation of the eye from ordinary causes.

As to counter-irritation, collyria, and salves, so much used by practitioners, they cannot be too much or too pointedly condemned. Except in the latter stages of the complaint, in some rare circumstances, it is difficult to conceive of any case in which they would be likely to be beneficial. I am only speaking my real sentiments when I declare that I know of no class of remedies which have done more mischief, or which are so well calculated to fret and annoy the patient, and to support and perpetuate the morbid action. Setons are abominably filthy and painful, and should be discarded from this branch of surgery; tartar emetic ointment and croton oil cause injurious irritation; in short, the only eligible article of this class of remedies is a small blister behind the ear, or, what is preferable, because more easily managed and more permanent, a very small issue, in this situation, made with the Vienna-paste. This, when the eschar is detached, may be dressed, twice a day, with a little adhesive plaster, and will furnish a free discharge for several weeks, when, if necessary, it may be easily re-opened by the application of a little more paste, or some irritating ointment.

The best collyrium, undoubtedly, is a solution of nitrate of silver; but, to answer the purpose, it should be very weak, and not be used until the inflammatory action is greatly diminished, when it may assist in expediting and perfecting the cure by contracting the enlarged vessels of the conjunctiva and cornea, by allaying the morbid sensibility of the eye, and by promoting the absorp-

tion of effused lymph. The strength, at first, should rarely exceed half a grain to the ounce of water, which may be gradually increased to a grain, or even twice, thrice, or four times that quantity, according to the circumstances of the case. Sulphate of zinc, acetate of lead, Goulard's extract, and similar articles are worse than useless.

When there are ulcers on the cornea, and they do not yield to the remedies already enumerated, they should be touched, as lightly as possible, once every other day, with the point of a camel-hair pencil wet with a weak solution of nitrate of silver, say three grains to the ounce of water; or, with the nitrate of silver in substance; the former, however, being generally preferable, unless the ulcer is in a phagedenic or gangrenous condition, when the latter should take the place of the solution, as being more prompt and efficacious in its action.

The only eye-salve which I ever employ in this affection is the ointment of the nitrate of mercury, in a very dilute state; generally in the proportion of about ten grains to the drachm of prepared lard. The ointment of the shops is entirely too strong, and can never be used without the risk of materially augmenting the morbid action. Diluted in the manner above stated, it may be advantageously applied in all cases attended with great relaxation of the vessels of the affected part, opacity of the cornea, and adhesion of the lids. The proper way to use it is to annoint the edge of the lower lid with a small pencil, dipped in the salve, every night at bedtime. When the salve is stiff, it should be previously warmed, otherwise it will not be likely to adhere. Thus employed, a very small quantity, a portion not larger than half a grain of rice, will suffice.

Some patients experience great relief from bathing the forehead, face, and temples, frequently with warm water, pretty strongly impregnated with common salt; while others derive most benefit from bathing with cool, cold, or hot water. In all cases the best plan is to permit the patient to consult his own feelings in the use of this remedy.

It need hardly be added that the eyes should always be carefully protected with a green shade; but on no account should the patient be allowed to wear green glasses, or, what is still more abomina-

ble and injurious, goggles. Such a practice, indeed, cannot be too much deprecated. The same remark is applicable to compresses and bandages. I have seen numerous cases in which irreparable mischief has been done by the protracted use of these articles. The true, legitimate practice consists in protecting the affected organs in such a manner that, while they are sufficiently screened from the light to render the patient comfortable, they shall have the full benefit of cool air. As the morbid action declines, more and more light should gradually be admitted, until at length they receive their accustomed supply. It should never be forgotten that light is the natural stimulus of the eye, and that by withholding this stimulus for too long a time, the organ may become morbidly sensitive; just as the stomach becomes irritable and unable to perform its functions when it is for a long time deprived of food.

Finally, I may state to you that I have rarely derived any essential benefit, in the treatment of any form of scrofulous ophthalmia, from iodide of potassium, so much vaunted by some practitioners. Formerly I was in the habit of prescribing this article quite frequently, but it so often totally disappointed my expectations that I have, of late years, laid it entirely aside. In obstinate cases, you will occasionally obtain benefit, especially in weakly children, requiring an alterant and tonic, from the exhibition of bichloride of mercury, in very minute doses, as the twentieth or twenty-fifth of a grain, in union with Huxham's tincture of barks. I am well aware that the salt in this prescription undergoes some chemical change; but this renders it, perhaps, only the more efficacious. It is not necessary to carry the remedy to the extent of ptyalism to obtain its full effects. Indeed, such an occurrence should always be carefully avoided.

Where there is hemi-crania, or excessive circum-orbitary pain, anodynes are necessary, particularly at night, both to allay suffering and to procure sleep. Under such circumstances, some practitioners are in the habit of applying belladonna ointment to the affected parts, and in some cases I have found the remedy of service, but, in general, it has disappointed me.

During the latter stages of the disease, the patient should take, daily, gentle exercise in the open air, as a means powerfully calcu-

lated to improve his general health, and to invigorate his constitution. In all cases, the greatest care should be taken to avoid exposure and indulgence of the appetite and passions. As another powerful means of guarding against relapse, a moderate use of the remedies, above mentioned, should be persisted in for a considerable time after all disease has apparently vanished.

Case 2.—*Hydatid Tumor of the Arm; Excision; Cure.*

William Gar, a stout, healthy-looking Irishman, aged twenty-five years, applied at my office, a few days ago, on account of a small tumor on the right arm. When first noticed, about six months ago, it was not larger than a hazel-nut, rather hard, and free from pain. Its discovery seems to have been altogether accidental. The man is a common laborer; and, although rather intemperate, has always enjoyed good health. Supposing that the case would be of interest to you, I have requested him to come here to-day, and I now show you the affected part. It will be perceived that the tumor, which is of a rounded, elongated shape, occupies the outer part of the arm, and that it is apparently lodged in the substance of the deltoid muscle. It is about the volume of a large almond with its shell, somewhat movable, especially at its inferior extremity, and of a firm, fibrous consistence, with a slight degree of elasticity. In fact, the sensation which it imparts to the finger is very much like that of an indurated lymphatic ganglion; a circumstance which, were the site not unusual, would suggest the idea that it might be a body of that kind. Within the last two weeks, the tumor has been somewhat painful, especially after exercise, and the pressure made in examining it is productive of slight uneasiness. The skin is perfectly healthy, and there is no disease in the neighboring parts. It is proper to remark that the tumor is increasing in size, though not rapidly, and that the patient is not aware of any thing that could have produced it.

In regard to the diagnosis of this tumor, it is impossible to offer even a conjecture. If it were situated in a region of the body where lymphatic ganglions occur, I should unhesitatingly pronounce it to be nothing but a structure of this kind, in a state of induration and enlargement; but, inasmuch as this is not the

case, such a conclusion would be unwarrantable. That it is not a fatty tumor is apparent from its consistence and rapid progress. Growths of the latter description are always soft, especially when small, and of slow development. I can not suppose that it is a sebaceous tumor, because it is hard, and too irregular in its outline to justify such a belief, to say nothing of the fact that the sebaceous, like the adipous tumor, is always remarkably tardy in its formation. It may be an encrysted tumor; but here, again, we are met by the fact that there is an absence of some of the characteristics of this class of morbid growths, particularly elasticy and fluctuation. Nor is it likely to be malignant, and yet upon this subject it behooves me to be somewhat guarded. We may assume that it is benign from the circumstance, chiefly, that the man is not more than twenty-five years of age, and that there is an absence of the sharp, lancinating pain so conspicuous in malignant disease. Possibly, the growth may be fibrous; for it certainly has a good deal of the feel of such a tumor; but here, too, our diagnosis is at fault.

The above remarks, which, were the occasion suitable, might be greatly extended, will, I trust, not be lost upon you; inasmuch as they will serve to show you how imperfect are our means of diagnosis in certain forms and stages of morbid growths. If the tumor were not so firm, I might use the exploring needle; for, in this way, I might, perhaps, be able to ascertain the nature of its contents; but its solidity forbids such a mode of examination; and I shall, therefore, proceed to remove it; hoping, after a careful inspection, to be able to determine its structure, and to refer it to its appropriate head.

In performing the operation, I shall make a simple vertical in-incision, when, reflecting the edges to their respective sides, I shall, probably, be able to enucleate the tumor by a rapid dissection, or merely by using the handle of the scalpel.

The above remarks having been made, the operation was proceeded with. In carrying the incision over the tumor, the knife penetrated it near its middle, and immediately there gushed out a small quantity of thin purulent fluid, inducing the belief that the swelling, after all, was merely a diseased lymphatic ganglion. Continuing the dissection, however, I soon found that there was a

distinct cyst, which, being collapsed, required some pains to separate it from the fibres of the deltoid muscle, in which it was embedded. After the removal was completed, Dr. RICHARDSON, who had kindly assisted in the operation, picked up a small body from the floor, which, upon examination, proved to be a globular hydatid, not more than about six lines in diameter, and furnished with a distinct sucker. The cyst was very soft and thin, smooth internally, and filamentous externally. Hardly any blood was lost in the operation. The parts were approximated by adhesive strips; and, at the end of a week, the greater portion of the wound had united by the first intention.

Considering the great rarity of this form of tumors, it is not surprising that we should have been unable to determine its diagnosis before its removal. Only a few examples of a similar kind are upon record. In some of the internal organs, as the liver and ovary, hydatids are occasionally observed, both in the human subject and in the inferior animals; but they are very uncommon in the other viscera, and also in the cellular tissue, whether beneath the skin or among the muscles. Of their cause and mode of formation nothing is known. After having attained a certain age, they sometimes lose their ostality, and thus becoming a source of irritation, induce suppuration in the surrounding parts, followed occasionally by their elimination. The probability is that this process had already commenced in the case of GAR, as was evidenced by the escape of pus on puncturing the cyst in the dissection, although the hydatid itself was apparently unchanged. The great consolation, connected with the tumor, is, that it is benign in its character, and, therefore, unable to return.

Art. IV.—A CASE OF SECONDARY FŒTUS.

A LETTER TO PROF. MILLER, BY B. A. JESSE, M. D., OF SHELBY CO., KY.

Jesse's Store, *Shelby county Ky.*, Jan. 14th, 1854.

Professor Miller.

Dear Sir:—A circumstance so strange and unaccountable happened a few days since, in my obstetrical practice, that I wish to communicate the facts to you, for a solution of the mystery. I will go somewhat into detail, that you may have the entire history of the case.

A mulatto woman, a slave, about twenty-five years old, healthy, the mother of several children, was delivered on the 14th of April, 1853, of a healthy looking, male child, which died in a few days, of convulsions. She was delivered again the 11th day of the present month, of a still-born child of good size, with short and deformed legs and arms. Umbilical cord short, with an aneurismal sac about one or two inches from the umbilicus. The waters excessive in quantity, so much so, that she complained, for some time before her confinement, of pain and uneasiness from the distention. The labor was not protracted nor severe. The placenta delivered; and all seemed to be going on well. On the second day after her delivery I was sent for, to see her, "as there was something wrong." I went to see her; she said that the night before, "something came away," and it was attached to a cord or string, and she had tried to pull it away but could not. I examined her, and found suspended to the umbilical cord a fœtus of about six weeks or two months old. I traced the cord to the mouth of the uterus, but owing to the contracted state of the os uteri I did not attempt to insert my hand. I used very moderate traction on the cord and it parted from its attachment. There must have been another placenta, for I am satisfied that I extracted all that belonged to the first child.

Counting four weeks from the birth of her child in April, 1853, it would be about eight months to her last confinement; but I suppose any one judging merely from the size and appearance of the child would have believed she had gone full nine months. Can it be possible that conception took place in the sixth or seventh month of the first child? Was it a dwarf? Hardly, for it was not developed, not matured in its members, but just as we find a fœtus of six weeks or two months. I should be pleased to know whether or not you have met with any case similar; will you please favor me with your views in regard to it. I will add that the woman never had *twins* before, though I have delivered her of two children before this, similarly deformed.

Very Respectfully,

B. A. JESSE.

PROFESSOR MILLER'S REPLY.

Louisville, Jan. 20, 1854.

Dr. B. A. Jesse,

Dear Sir:—Your letter of the 14th inst., was duly received, and I thank you for the narrative it gives of a rare though not unique, case in obstetric practice. It has never happened to me to meet with such a case in my own clinical experience, but several such may be found on record. Not to refer to other authors, Dr. John Ramsbotham relates a few cases of the kind in his "*Practical Observations in Midwifery*," part ii., prefacing them by some explanatory remarks. He denominates, not very happily, as I think, the abortive product a *secondary fœtus*, and considers it to be twin of the living child, or the one that attains its maturity. In the cases related by him, there were symptoms of abortion at the period of pregnancy, when this is most liable to occur, but these symptoms subsided without the ovum's being expelled, and hence he inferred that the threatening of abortion was consequent to the loss of vitality on the part of one of the ova of a twin conception. The dead ovum may be retained in the cavity of the uterus till the living one acquires its complete development, and be expelled subsequently to it at the time of

parturition, as it happened in your case. You do not state whether your patient was threatened with abortion in the course of her pregnancy, and it would be interesting to make inquiries on this point.

That one of the ova in cases of twin pregnancy may be blighted without implicating the other, is proved by the observation that the dead ovum may be expelled, whilst the living one is retained, its development proceeding to maturity without molestation. The author, whom I have cited, gives cases of this kind also, in his valuable repository of facts, to which reference has been made.

If this explanation be not adopted, the only hypothesis which can be assumed to account for the phenomenon, is that of superfœtation, or a second and separate impregnation. I know of no sufficient evidence to authorize a belief in superfœtation, except perhaps its occasional occurrence in females with double uterus, or possibly in females with single uterus at a very early period, say a few hours, after the first impregnation. The changes that take place in the uterus shortly after conception and the establishment of a new process, that of gestation, are, as it appears to me, quite incompatible with a superimpregnation. I hold it to be altogether impossible at so advanced a period of pregnancy as the sixth or seventh month.

To my mind the most wonderful feature of the case reported by you, is the *superfœcundity* of the woman, whose uterine apartment was to let immediately, as it seems, after its evacuation on the 14th April, 1853, and was actually leased to him with the "short" limbs and his short-lived twin brother.

Respectfully, your obedient Serv'nt.

H. MILLER.

Art. V.—PHYSIOLOGICAL CHEMISTRY.

BY BENJAMIN SILLIMAN, JR., M.A., M.D., PROFESSOR OF MEDICAL CHEMISTRY AND TOXICOLOGY IN THE UNIVERSITY OF LOUISVILLE.

It is not our purpose to attempt a full review of the elaborate and truly learned works upon Physiological Chemistry whose titles are given below. * Such a review would, if sufficiently full to cover the whole ground, extend to an unreasonable length, and embrace details not interesting or even generally understood by the body of the medical profession.

Simon's Chemistry of Man, which appeared in 1842, marked an era in chemical physiology which has been followed and sustained by immense activity in researches bearing upon the chemistry of life. The results of the zeal and industry of the army of workers, which flocked to the laboratories of Paris, Giessen,

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* Physiological Chemistry, by Professor C. G. Lehmann, translated from the second (German) edition, by Geo. E. Day, M. D., F. R. S., Fellow of the Royal College of Physicians, and Professor of Medicine in the University of St. Andrews. London: 1851, 1853. Printed for the Cavendish Society. Vols. I, II; 8vo., pp. 455 and 465, respectively

Atlas of Physiological Chemistry, (consisting of microscopic figures,) being a supplement to Lehmann's Physiological Chemistry, by Dr. Otto Funke, of the University of Leipsic. London: 1853; printed for the Cavendish Society; quarto, fifteen plates, (with ninety figures,) engraved on stone and printed in colors, with explanatory text by the author, quarto, pp. 29.

Robin et Verdeil Traite de Chimie Anatomique et Physiologique, Normale et Pathologique, &c. Treatise on Anatomical and Physiological Chemistry, Normal and Pathological; or, the proximate principles, both morbid and normal, which compose the bodies of man and mammiferous animals, by Chas. Robin and F. Verdeil; with an Atlas of forty-five plates, in part colored. 3 vols., 8vo., pp. 728, 584, and 595. Paris: J. B. Bailliere, 1853.

Lehrbuch der Zoochemie, von H. W. Heintz. Berlin: 1853; 1 vol., 8vo., pp. 1107, with two plates.

Utrecht, and Berlin, to follow up or refute the doctrines of LIEBIG, so eloquently announced in his well-known works,—these results, so long appearing as an intricate and unconnected mass of facts in organic chemistry, have now assumed a degree of systematic order and compact connection, worthy of the labor which they have cost.

We shall in the present article confine ourselves almost exclusively to the work of LEHMANN, trusting on a future occasion to resume the consideration of the others. LEHMANN'S work has been translated and published for the members of the Cavendish Society.

The Cavendish Society is one of those organizations, established during the past few years in England, whose object is to publish, solely for subscribers, rare and important works, either historical or contemporaneous, which no publisher can be found willing to undertake. The Sydenham Society has thus conferred lasting benefits upon medical literature, by its now long catalogue of rare and valuable treatises. The Cavendish is doing the same service for the chemical reader. One of the most important benefits conferred by these associations is the translation, by competent hands, of the current medical literature of Germany;—researches published in German only, are a sealed record to the greater number of even well educated readers of English, and yet we know that the most laborious workers are Germans, and certainly some of the most original and important observations in all departments of science are made in Germany. The Cavendish Society employed Dr. GEO. E. DAY, F. R. S., to translate "LEHMANN'S *Lehrbuch der Physiologischen Chemie.*" Dr. DAY'S fitness for this task is evinced both by the ability with which he has rendered the original, and by his experience as the translator of SIMON'S Chemistry.

Two only of the three volumes of LEHMANN'S work have appeared in English, and the third were issued in Germany only toward the close of last year. It is accompanied by Dr. FUNKE'S Atlas of Physiological Chemistry, a distinct work, but prepared with special reference to the elucidation of LEHMANN'S Chemistry. The quarto plates of this work, fifteen in number, embrace ninety separate microscopic fields, exhibiting everything which can be seen in form, structure, or color, illustrative of the various mor-

phological elements and organic substrata of the animal organism, both in health and disease, as far as they have been observed by the author. Every detail is original and drawn from the microscope, and nothing is copied from other observers.

An apology for chemistry as the younger sister of medicine and claiming to be her teacher, is no longer demanded of the physiological chemist, and in the pendulation of professional opinion, the votary of this science is led almost to fear that the high expectations of the future development of a rational system of therapeutics, diagnosis and practice, as a result of zoochemical researches, may be met with disappointment. Not that he fears, or would limit the resources of his science, under the guidance of a rigorous induction from facts of undoubted authenticity; but, rather, as LEHMANN remarks, that "enthusiasm in the cause of organic chemistry has degenerated amongst many physiologists and physicians into fanaticism, which, even in the best cause, tends to invalidate a host of truths in its endeavors to uphold some single fact." We might be disposed to ask whether its most zealous partizans have not retarded, rather than accelerated, the period at which it will attain its proper share of appreciation, and its just recognition. In commencing, therefore, the study of physiological chemistry, nothing is more important than clearly to understand the nature of the results which this department of science is now capable of yielding, and the requirements which, in its present state of development, it fulfils; and to ascertain the cause, the means, and the methods, most likely to lead us safely within its domain, and at the same time the best adapted to promote its further progress.

The subject of physiological chemistry naturally divides itself into three grand divisions—each capable of separate investigation, but following each other in a determinate logical sequence. These are, first, what are called the "organic substrata of the animal organism; i. e., such substances as are usually intended by the term "proximate principles," (and which is a translation of the French term *principes immédiats.*) Such are the various organic acids, the alkaloids, the salts of fatty acids (fats), sugar, coloring matters, protein compounds, (albumin, fibrin, etc.), and the various mineral constituents of the body. It is to the history of these,

as the corner stone of all rational knowledge of animal chemistry, that our author devotes his first volume.

The second division includes the "animal juices," regarded as the variable results of the union and secretion of the members of the first division, under the influence of the various processes of life-chemistry, occurring in the animal organism, both in health and disease. The discussion of this important class of products—which occupies the position of an intermediate link between the theory of the organic substrata and that of the zoo-chemical processes—fills the second volume.

The third division of the subject is the study of the zoo-chemical processes, based on zoo-chemistry and the theory of the animal juices—the theory of the metamorphosis of tissues, of nutrition and secretion, of digestion and respiration. This is the sum and crown of the whole subject, and fills the third volume of LEHMANN, which has not yet appeared in English, but is now in process of preparation by the Cavendish Society. Meanwhile, let the reader of English content himself with a careful study of the two volumes already in his hands, convinced that he cannot too thoroughly master the subjects therein treated, so fundamental to any rational and practical deductions which are to be drawn from them toward forming a just notion of the metamorphosis of the tissues.

LEHMANN's work is opened by an introduction, occupying twenty-four pages, which the author calls a "Methodological Introduction," and in which he discusses in a most masterly manner, and in the spirit of a cautious philosophy, the sure principles which should guide the scientific enquirer in the prosecution of physiological chemistry. From this "Introduction" we propose to make some rather ample extracts, as it is not possible to put the important truths it contains—as the ripe results of long study and great genius and skill—in more forcible and compact expression. We commend to the attention of men who are vainly striving after a "true theory" for the explanation of vital phenomena, not as the result of legitimate investigation, but as the off-spring of ingenious presumption, the following:—

"It is only by the application of abstract physical laws, by the establishment of certain momenta of empirically observed phe-

nomena, and by a steady adherence to safely guiding maxims,—in short, by logical sequence,—that we can advance in the investigation of vital phenomena. It would almost seem as if medicine, in the earlier periods of its history, had cast a shadow over those kindred sciences which are able to afford it aid and support, clouding even their brightest points. It has thus been found impracticable at once to rid medicine, notwithstanding its assumed physiological character, of the mania of attempting to explain everything by the old system of hypotheses; and hence this science has derived less benefit than many others from the exact method of physical enquiry, having simply borrowed certain materials from chemistry and the kindred natural sciences, and substituted, in the place of the older vagaries of natural philosophy, various chemical phrases and high sounding terms, scarcely less devoid of true import than the former. This deficiency in logical sequence, which we so frequently at present encounter in medicine, has unfortunately also infected animal chemistry; for here likewise facts have not been sufficiently distinguished from hypotheses, or hypothesis from fiction. This is more easily accounted for in physiological than in pure general chemistry; for while the latter treats almost exclusively of palpable phenomena and of well-established facts, which easily admit of being reduced to definite laws, in the former we must necessarily have recourse to experiments and natural investigations, whose success must in a great measure depend on individual operations of the mind. Zoo-chemical processes are the most complicated of any comprised in the domain of natural enquiry; but such processes are not capable of tangible demonstration, but must be divined, or rather, intellectually apprehended. Our senses are incapable of perceiving the causal connexion of things, or the logical succession of phenomena; thus we do not see motion, but simply recognize it by the result of the changes effected by it; we do not perceive heat, but simply the variations of the temperature, and the results to which they give rise, &c. Hence it is not our senses which here deceive us, but the judgment which we form regarding the objects presented to us by the perceptive faculties. The causal connexion of several allied phenomena, (*i. e.*, a process,) can therefore only be comprehended by the subjective combination of individual objects perceived by the senses, and not by sensuous intuition alone. But as soon as we subject to investigation the highly complicated chemical phenomena of life, we enter upon the actual domain of hypothesis. It unfortunately happens, however, that the correct logical conception of an hypothesis has been completely lost sight of, and its place supplied by the vaguest fictions; whence the term has fallen into such discredit that many have been desirous of setting aside all hypotheses, unmindful that even the simplest form of experiment cannot be prosecuted without their aid. Hypotheses

are indispensable in every physical enquiry, and must constitute the base of every experiment, as they are in fact merely the subjection of our thoughts and mode of intuition to the reality of phenomena. The question, however, always is, whether the facts at our command logically justify such a procedure, since where such is not the case, the deduction at which we arrive is undeserving the name of an hypothesis, and is a mere fiction, supported at best on a hypothetical foundation.

Physiological chemistry has given rise to many delusions of this nature, owing to its imperfect development, and to the necessity presented by physiology and pathology for chemical elucidation. Some few isolated deductions were drawn from superficial chemical experiments, and arranged in a purely imaginary connexion by the aid of chemical symbols and formulæ, for whose establishment analysis in many cases did not even afford any sanction. Thus, for instance, in the attempt to form a conclusion regarding the metamorphosis of the blood from an elementary analysis of its solid residue and of the composition of the individual constituents of the excretions, there is an utter absence of all scientific groundwork; for, independently of the fact that the elementary analysis of so compound a matter as the blood is incapable of yielding any reliable results, and cannot, therefore, justify the adoption of any special chemical formulæ, it is assuredly most illogical to attempt to compare the composition of the blood collectively, with that of the separate excrementitious matters. In such deductions, expressed by chemical formulæ, the addition of atoms of oxygen, and the subtraction of those of water, carbonic acid, and ammonia are wholly arbitrary: for chemical analyses do not afford the slightest grounds for the majority of these equations. When, on the other hand, we have seen uric acid decomposed by different oxidising agents into urea and other bodies, and when, further, we find the quantity of uric acid increased in the urine in those cases where a diminished quantity of oxygen is proved to be contained in the blood, we are justified in concluding that also in the animal organism a portion, at least, of the urea found in the urine must have been produced by the oxidation of the uric acid. In the formulæ which expresses this deduction, we have an hypothesis, but a well-grounded one, which, although requiring further confirmation, is yet wholly different from the frequently condemned, but rarely avoided, abuse of chemical symbols. Chemical equations having no other foundation than the presumed infallibility of empirical formulæ, must, however, cause us to deviate from the path of physical enquiry, and involve us in a chaos of the most untenable delusions. Thus, for instance, a chemical equation might lead us to conclude that glycine (glycocoll) was the source of urea and lactic acid in the metamorphosis of the animal tissues; for we might conclude that two equivalents

of hydrate of glycine were decomposed into the above-named substances according to the formula, $C_8 H_{10} N_2 O_8 = C_2 H_4 N_2 O_2 + C_6 H_6 O_5 . H O$. All experiments hitherto instituted with glycine are, nevertheless, opposed to such a disintegration. If, then, we would deduce urea and lactic acid from glycine, which has not been proved to exist in the blood, we should be neglecting the most comprehensive rule of logic, according to which one hypothesis cannot be supported by another. It has, however, unfortunately been too much the practice in recent times to employ far more complicated equations as supports for such purely subjective modes of contemplation, by which a semblance of the most exact method of investigation has been assumed. By these means a number of chemical fictions have supplanted the fancies of that speculative natural philosophy which in earlier times encumbered the study of physiology and pathology, and have plunged medicine into the midst of a new labyrinth of untenable theories."

The author then proceeds to indicate a further cause of the partial failure of the application of chemistry in vital phenomena, in the imperfect causal connexion among the different branches of natural science. He illustrates this by reference to the diagnosis afforded by pathological anatomy, which has received so little attention on the part of those who have conducted pathologico-chemical enquiries, while on the other hand the adherents of the pathologico-anatomical school have made full use of chemical phrases and fictions without an adequate acquaintance with the general science of chemistry. If chemical investigations, regarding objects belonging to pathological anatomy, would aspire to a scientific value, and if they are to afford any true elucidation of pathological processes, it will assuredly be admitted that the question should be adequately considered from an anatomical and diagnostic point of view. Yet every day presents us with instances of the most flagrant neglect of this self-evident proposition. How frequently we hear of the chemical examination of diseased bones, without any regard to a diagnosis at all in accordance with the present condition of pathological anatomy. We even more frequently meet with similar inconsistencies in the investigation of diseased animal fluids.

We cannot read the following bold and manly sentences without wishing that a similar courage in facing the truth could animate all teachers and investigators—so strongly contrasted with the too

prevalent desire evident in many writers to slur over the weak points of their subjects with the semblance of fact or argument in hope of making a strong case.

"A third circumstance which has led to misconceptions in physiological chemistry depends upon an over-estimate of the value of chemical auxiliaries, and a complets ignorance of the present condition of organic chemistry. Have the numerous analyses of morbid blood, instituted during the last few years, fulfilled the expectations of physicians? With all due gratitude to the indefatigable investigators who, with no other aid than that which zoochemistry could offer, boldly attempted to throw light on those obscure enquiries, it must be admitted that, when we seriously enquire into the recompense of all their labours and sacrifices, we find that the result, although too dearly bought, was altogether inadequate to satisfy the requirements of pathology. Have the numerous analyses of urine led to much more than the assumption of several new species of disease, or so-called diathoses? Although we might have anticipated greater results, we can hardly wonder that the efforts hitherto made should either wholly or partially have deceived our expectations; for although these investigations may have rendered chemistry no unworthy auxiliary to a physical diagnosis, analyses of morbid products could hardly afford an insight into the chemical laboratory of the organism, while the means were wanting to prosecute them with the scientific accuracy attainable in the case of mineral analyses. Animal chemistry is still wholly unable to afford us a precise, and at the same time a practically useful method of investigating the blood; and how should it be otherwise while we continue to be in doubt regarding the chemical nature of its ordinary constituents? The mineral substances of normal blood are not yet determined, or, at all events continue to be made the subject of dispute; we scarcely know the names of the fatty matters it contains; one of its most important constituents, fibrin, cannot be chemically exhibited in a pure state; we are ignorant of the nature and mode of secretion of the globulin of the blood-corpuscles; we are still far from being able to separate and determine the so called protein oxides; and we are also ignorant of the excrementitious substances occurring in the blood. How then, amidst these and a thousand other uncertainties and doubts, can an investigation of the blood be scientifically and trustworthily conducted? We analyse healthy and morbid milk, and yet we are ignorant of the substances whose admixture we have termed casein. The urine, in its morbid condition, presents many varieties; and yet our knowledge of this secretion, frequently as it has been analysed, amounts to little more than an acquaintance with the quantitative relations of some of its principal constituents; creatinine and hippuric acid have not been de-

termined by any analysis, and doubts are still entertained by some chemists, (although most unjustly,) regarding the presence of the latter in human urine, while absolutely nothing is known regarding the most important pigment of this secretion. Many experiments have been made and theories broached on nutrition and digestion, and yet to almost the present day the existence of lactic acid in the gastric juice has been contested. Although hypotheses are not wanting regarding the mode of action of pepsin, we know nothing of its chemical nature, and we are wholly ignorant of the proximate metamorphosis of albuminous bodies in the stomach during the process of digestion. Will MULDER be able, even with his most accurate analyses, to support his protein theory by the aid of sulphamide and phosphamide? or is this term destined merely to indicate a past epoch of organic chemistry? When such is the state of animal chemistry, can we wonder that there should be obscurity regarding the chemical processes in the animal body, their various isolated and combined actions, their causal connexion and their dependence on external influences and internal conditions? Unfortunately, we might be led to believe, from the lectures and writings of many physicians, that, trusting to the aphoristic and often highly apodictic assertions of certain chemists they felt secure of having reached the object of their enquiries. Although at present little more than the direction is indicated we may hope in due time, and after innumerable efforts, to see our endeavors crowned with success."

Having enumerated the deficiencies and errors belonging to the chemistry of the vital processes, the author passes to the method and principles by which alone this science can be made to fulfil its just requirements. The final result of all physiologico-chemical investigations is assuredly to gain an accurate knowledge of the progress and connexion of the chemical phenomena attending the vital processes. It is needless to prove that we must thoroughly understand the substrata of the metamorphosis of the animal tissues before we can venture an opinion on the nature of the processes. The surest supports of physiological chemistry are to be sought, therefore, in general organic chemistry; while the study of the organic substrata of the animal body, must necessarily constitute an integral part of physiological chemistry, and prove a most efficient aid towards its development.

After having in this manner familiarized ourselves with the organic substrata of the animal body, we are still only on the threshold of the study of the constitution and functions of the animal juices and tissues.

"The study of the zoo-chemical processes based on zoo-chemistry and the theory of the animal juices, appertains to the third section of physiological chemistry, the theory of the metamorphosis of tissues—of nutrition and secretion. It has already been observed, that the actual object of physiological chemistry is to examine the course of the chemical phenomena of the animal organism in their causal connexion, and to deduce them from known physical and chemical laws; or in other words, to explain them scientifically. Even if we regard the chemical substratum, as made known to us by zoo-chemistry and the theory of the juices in the light of a satisfactorily investigated question, there are still several directions to be pursued before we can reach the proper object of our enquiries. It is here most essential that we should be well acquainted with the paths to be followed, for in our search after truth we are compelled to call to our aid hypotheses which might easily lead us into the domain of pure fiction.

"As long as zoo-chemistry and the theory of the juices continue to occupy their present subordinate position, the only method by which the foundation necessary to an exact investigation can be obtained, is that which we may term the statistical. LIEBIG, BOUSSINGAULT, and VALENTIN have indeed, with a more correct view of what was required, attempted to compare the final effects of the whole with the material substrata supplied to the organism. We cannot, it is true, arrive at any conclusion regarding the working of the process itself by a mere juxtaposition and quantitative comparison of the ingesta and excreta of the animal organism, any more than we can judge of the causes and course of diseases by the number of fatal cases recorded; but such experiments furnish us with certain general results which serve as guides to further investigations. Some of the most important questions, whose solution was specially necessary, were unanswerable by any other method. Thus, for instance, it was ascertained, by an accurate investigation of the food, and its comparison with the constituents of the excreta and of the nutrient fluids, that in the ordinary food of animals, albuminous substances occur in sufficient quantity to compensate for the nitrogenous matters lost in the process of nutrition and in the metamorphosis of tissue; while it was thus at the same time shown, that the animal organism does not necessarily possess the property of generating albuminous matter from other substances containing nitrogen. The question whether the animal organism possessed the property of generating fat was answered in a similar manner; and it is well known that by means of such statistical observations, (comparing the fat contained in the food with that secreted in the cellular tissue and mixed with the excrements) the contest carried on between LIEBIG on the one side, and DUMAS and BOUSSINGAULT on the other, regarding the formation of fat, was finally decided in favor of the former.

"This statistical method preserves us from setting up untenable hypotheses, and prosecuting useless experiments. How long were the minds of natural philosophers haunted with the illusion that animal bodies possessed the power of generating mineral elements, as lime, iron, sulphur, &c., from other elements, or even from nothing! It was this method alone which exposed the perfect nullity of the obstinately defended dogma of the 'vital force.'"

The author follows up this line of argument by allusion to other applications of the statistical method as one of the most important aids toward a solution of some of the more general questions in reference to the metamorphosis of the animal tissues. In addition he refers to the *comparative analytical* or *chemico-experimental* method, by which he may examine the cause of phenomena and the cause of their succession, in as far as the chemical phenomena of the living body may be artificially imitated, and the chemical metamorphoses of certain substances, external to the vital sphere, be compared with those within the influence of the vital processes. Liebig and his school have here done essential service.

"Liebig was led to believe from his statistical enquiries on fats, that these substances in their transmission through the organism, were in a great measure oxidised and reduced to water and carbonic acid, by which means they specially contributed towards the maintenance of animal heat. As he was by no means inclined to believe, as some have supposed, that fat was consumed in the lungs, somewhat in the same manner as oil burns in a lamp, it was necessary more accurately to investigate its gradual metamorphosis, and its transition through different stages of oxidation, and into bodies containing a larger quantity of oxygen. He believed that he could most readily attain this object by the comparative analytical method; and hence he and his school entered upon a series of experiments on the numerous products of decomposition of fatty matters, and more especially on their products of oxidation; and although we may still be far removed from the object in view, these enquiries have enriched us with many valuable results. A similar instance is afforded by the gelatigenous tissues of the animal body; for although our histological and statistico-chemical investigations leave not the slightest doubt that the gelatin is formed from the albuminous matters, the process of this metamorphosis is still wholly unexplained; and before we shall be justified in forming an opinion regarding this metamorphosis, and expressing it by a chemical equation, it is indispensably necessary that we should investigate the metamorphoses experienced by albuminous bodies during their gradual oxidation.

We are indebted for these views to the admirable investigations prosecuted under LIEBIG's direction, by SCHLIEPER and GUCKELBERGER, on the products of oxidation of albuminous bodies and of gelatin."

We have no wish to trespass on the patience of our readers by extending our quotations from LEHMANN to an unreadable length, and we will therefore content ourselves by giving a few sentences from the concluding paragraph of his "Introduction."

"In conclusion, we would advance a few remarks on the place which physiological chemistry occupies, or at some future period will occupy, among the auxiliary medical sciences. If the final result of all physiologico-chemical enquiries be that of comprehending the chemical phenomena of animal life in their different phases and in their causal connexions, it is obvious that we must look to this science for a solution of the most important questions of physiology, and of medicine generally. It cannot be denied that most of the phenomena of animal life either consist in or are accompanied by chemical processes; nor can we form an adequate conception of the functions of the nervous system by which sensuous perception and motion are regulated, without the simultaneous existence of chemical actions. For although we are as yet unable to make nervous action fully harmonise with definite physiological laws, or to identify it with certain physical forces or imponderable fluids, all physiological experiments indicate that it is always followed by a chemical reaction, and that the nervous system experiences chemical changes by and through its own activity. It must, indeed, be admitted that any actual proof of such chemical metamorphoses is at present perfectly unattainable, and that our chemical methods would here afford us no higher aid than that which the scalpel yields to the pathological anatomist. But ought we to despair of attaiding our object, because we do not as yet clearly perceive the direction we are to follow? Weariness of the senses is the diminished impressibility of the nerves of sense, but its cause cannot reasonably be sought for in any other than a chemical change, experienced by the conducting substance of the nerves. Such a chemical metamorphosis of the nerves of sense from external impressions can no longer greatly excite our astonishment, since we have witnessed the unexpected phenomenon of a picture produced suddenly, and as it were by magic, from the chemical changes effected by the rays of light on an iodised silver plate. Should we not be equally justified in saying that the iodised plate, which after being exposed for a few seconds to a strong light gives only faint and half effaced images, is wearied like the retina, when after repeated and continuous perception of an image, it gives back only the faint outlines of the object? We

may rest assured that the nervous system is not exempt from chemical action; and if the nervous system itself must fall within the domain of chemical contemplation, and a chemical expression remains to be found for its action, no less than for that of digestion and for the formation of blood, it is scarcely necessary to offer further proof of the fact that chemistry is destined to play the most important part in physiology and medicine. However much we may endeavor to exclude chemistry from certain physiological investigations, we shall always find that it involuntarily forces itself upon our notice; for without it we shall be unable to find a physiological equation or a philosophical expression for a process. In a scientific point of view chemistry must, therefore, be regarded as an invaluable acquisition to physiology. We have, then, little cause to dread that Cicero's observation "*Suo quisque studio delectatus alterum contemnit*," will be applied to ourselves when we assert that physiological chemistry is the crowning point of every physiological enquiry.

"When we turn to practical physiology, to pathology, and therapeutics, we are again reminded that chemistry is indispensable. Is there a single disease that is not attended by chemical changes? Can we ever hope to comprehend or explain the nature of any process, if we are ignorant of its integral factors? Life cannot exist without chemical movements, disease cannot exist without chemical changes. Thus much in reference to pathology; while in respect to therapeutics, it is almost superflous to observe that chemistry here also plays the principal part, for where has modern pharmacology sought its chief support, save in chemical processes and principles? And if we have advanced so far towards a clear insight as no longer to ascribe supernatural forces to medicines, but to derive their efficiency especially from chemical properties, then must chemistry be the supporting basis of pharmacology. The physician acts upon the body mostly by the aid of matter, which retains its characteristic powers within no less than without the organism. If then nervous action likewise falls within the sphere of chemical metamorphoses, the *Nervina* (or *Neurotica*) of pharmacologists must primarily at least act chemically on this system."

We are reminded by this argument of our author, of a remarkable passage in one of the lectures of Dr. John Simon, F. R. S., of London, on general pathology. He is speaking of the use of excretive drugs in relation to humoral pathology, (lecture xi.,) and after announcing that "within the compass of pathology, I know of nothing so obscure and unsatisfactory as that division of the science which relates to morbid and medicinal changes in the excretory functions:" he proceeds to contrast the vagueness and

uncertainty of our knowledge of the action of remedial agents with what occurs in chemistry and physics—and discourses in the following remarkable and suggestive manner:

"We are led to an intimate pharmaceutical acquaintance with the *Materia Medica.* We learn the smell of rhubarb, the tests of arsenic, the chemical incompatibilities of iron, the adulterations of quinine or sarsaparilla, and so forth. We become skilful dispensers. We know that bark very often cures ague; that copaiba frequently stays a clap; that cod-liver oil and iodide of potassium between them relieve a good many cases of scrofula; that taraxacum is sometimes useful below the diaphragm, and squill above it. And with this farrago of traditions, the misnamed *science of Materia Medica* has remained so contented and so stationary, that at the present moment—in the middle of the nineteenth century—we do not possess a complete medical knowledge of any single article of the Pharmacopœia.

"It would be easy for one quite ignorant of medicine to predict, on general grounds, what must be the result of this state of things; what blind reliance on specifics where they are supposed to prevail; what credulous—perhaps rather what desperate combinations of drugs where we have no traditional specific to trust to. An indifferent shot in a turnip-field does not mark his one bird and bring it down; he bangs at the whole covey, and thinks it a hard case if he hits nothing. On some such principle as this—scarcely sanctioned in the sportsman, much less admissible in the medical philosopher—we too often discharge our barrels. If the immemorable *certificates* of a specific serve us instead of real knowledge, and enable us confidently to give quinine to one patient, and sulphur-ointment to another—good; but in the absence of such traditions, how many prescriptions are written, which combine at least a dozen different materials, where the prescriber is utterly unable to define the precise errand on which any one of these ingredients is sent into his patient's body. This prescription failing another of the same sort is written, and another after that; and presently the patient dies or recovers, as the case may be. And in either event, from the absence of a definite principle in the treatment, and from the want of having attached a separate meaning and intention to each drug employed, the pharmaceutical experiment has been too complex for the practitioner to draw any rational or useful inference as to the immediate causes of his success or failure.

"Contrast this with what occurs in chemistry or in physics. You wish to precipitate a certain material from its solution; you do not throw in at random the contents of several vials, with a vague hope that one of these re-agents may answer your purpose; you proceed with a very definite object, and by appropriate means.

If A be present (you say) B will throw it down, by forming such or such insoluble combination—provided (you may perhaps have to add) that C be not present likewise, for in that case C must, first of all, be neutralized; provided also, (you may further have to concede) that B be added in a sufficient, and not in an excessive quantity, lest it re-dissolve its own precipitate. These, or similar allowances being made, the sources of fallacy are just as definite and palpable as the anticipated positive result; and, if your operation should miscarry, you would be able to account for its failure, and to repeat it in a form which—not casually, but certainly—would accomplish your purpose. So, again, if you plunge the wires of your galvanic battery into water, and fail to produce the expected result, you do not fly off to some new arrangement—you do not try wooden conductors, or add twelve additional wires, or attempt to decompose the fluid with your finger and thumb; you know exactly what the hitch must be, that your circuit must be incomplete, or that you have forgotten the acid, or something of this kind; you correct your omission, and you are certain of the result—*certain*, because you know definitely the means to attain it, and are cognizant of their method and principle of operation. On the other hand, when we have given colchicum to six patients suffering with gout, when it has relieved two of them, and has left four unrelieved, we are quite unable to explain why it failed here, and succeeded there; and consequently, in that unsuccessful majority, we are quite unable to supply the absent condition (whatever it may have been) which was accidentally present in the successful instances, and conduced essentially to their cure.

"It is quite indispensable for the progress of medicine—I might say, indispensable for its existence as a science—that our *Materia Medica* should be made subject to a true pharmacology; that its province should cease to be a mere emporium of recipes; that we should have a knowledge of its various elements in their true relation to the living body; that we should give drugs only with a clear perception of their causativeness, and with a definite object before us; understanding the medicine as well as the malady, and taking one good aim at the substance of the disease, instead of discharging a volley at its shadow."

After showing the close and inseperable union which must subsist between pathological and physiological chemistry—and the absurdity of rejecting the evidence of the former on the ground that it deals with abnormal conditions—our author lastly enters a warm protest against the transcendental doctrines of what is called metaphysiology. The recent advances of organic chemistry have unfortunately been interwoven with a fantastic physiology, which designates itself as a comparative science. Comparing together

the *functions* of the organs of different animals as comparative anatomy compares their structure, is not a science, but a system founded on abstractions and ideal comparisons. We entertain all due respect for that form of metaphysics which occupies the same rank among the speculative sciences which chemistry and physiology hold among the exact sciences. But metaphysics and physiology may be likened to two divergent lines, which coincide only in their starting point, never again to unite. "We therefore believe with the diffidence beseeming true students of nature, that it would be wiser, and more conducive to the spread of true knowledge, to adhere in the study of vital processes, to matter and to the laws by which it is determined, than, following the fictitious abstractions of dynamical processes to assume that there exists in life a higher power of the spiritual force pervading matter.

"We are firmly convinced that even metaphysiology will be unable to deprive physiological chemistry of the consideration due to it among physical studies, in its explanation of vital processes; and we will, therefore, leave it to the poetic and the imaginative to depict the romance of the protecting activity and sturdy contest maintained by the vital force, and of a struggle between different powers,—between the attraction and repulsion of polarities. Does it not need a superabundant richness of fancy to believe with metaphysiologists, that apparent death, trance, or (as it has been termed) latent life, the predominance of the spiritual over the material (the metamorphosis of matter being at its minimum) rather than a predominance of the material over the spiritual, as sounder minds would be led to assume? It would be well if these spiritualists would look down from the high stand they have chosen, and deign to believe that there are some among those experimentalists, who, clinging to matter, and gathering their facts with ant-like industry from the lowly earth, notwithstanding that they have long held communion with the poet-philosopher, Plato, and the philosophical natural inquirer, Aristotle, and have some familiarity with the Paraphrases of Hegel and Schelling, are yet unwilling to relinquish their less elevated position. If these happy admirers of their own Ideal had descended from their airy heights and closely examined organic matter, they would not have deemed it necessary to assume, that besides carbon, hydrogen, nitrogen, and oxygen, organic substances must also contain an *organogenium* or latent vital force, or whatever else they may be pleased to call it. Had they sought information from a chemist, they would have learnt, that when exposed to the clear light of rigid logic, there is no essential difference between organic and inorganic

bodies; a chemist totally unacquainted with organic matter, would *a priori* have deduced all these incidental differences of matter, from the doctrine of affinity and the science of stoichiometry, evolved from dead matter. However these advocates of a romantic poetry of nature may despise the swarm of industrious investigators, who are often unwearyingly occupied for years together in endeavoring to collect a few firm supports for the great edifice of a true philosophy of nature, we do not despair of seeing our work rise in simple grandeur, more durable and lasting than those sophisms of natural philosophy which, passing through ages from Pythagoras and Empedocles to Schelling and Hegel, have, like the sand of the ocean shore, been alternately upborne by one wave and engulphed by the next."

Having thus followed our author to the threshold of his subject we must bring our article to a close and wait the publication of his final volume on the transformation of the tissues and the great vital processes, satisfied if we have been able to indicate clearly the line of his argument and the spirit of safe, cautious and practical philosophy which animates his work. We trust that an American reprint of LEHMANN's Chemistry will be undertaken in order that the work, now comparatively inaccessible and very costly, may be brought within the reach of all students.

ROBIN AND VERDEIL (*Chimie Anatomique*) have produced a work of great labor, covering much the same ground as LEHMANN. It is elaborated in the best style of the French school, and in respect to its thoroughness of bibliographical and literary research leaves nothing to be desired. It is entirely out of the question that we should enter at all on its merits at present. The authors are well known as among the most laborious, earnest workers in "young France." This present treatise is accompanied by an atlas of microscopic plates of the crystalline bodies found in the fluids and cavities of the animal organism, drawn and colored from nature, by the authors, which surpasses everything ever done before in the same line, not even excepting the faithful excellence of Dr. FUNKE.

The discovery by VERDEIL of a new and peculiar acid (the *pneumic*) in the substance of the lungs has led to the broaching of a novel theory or explanation, for the origin of the carbonic

acid of respiration, as being the product of the action of this acid upon the alkaline bicarbonatis of the blood. This new view, so much at variance with the "combustion theory," is discussed at some length, and with much ingenuity. Taking the facts as they are stated, it shows how far we yet may be from having conquered the first foot of stable ground, in the still new domain of this most vital function.

Editorial Department.

CHOLERA.

This plague appears to be again impending over us. Cases of it have occurred on nearly all the vessels that have arrived for some months past, at New Orleans and New York, from the ports of Europe. The disease has never been epidemic in our country during the winter season, but there is reason to apprehend that on the return of warm weather it will again spread from those points.

It is a melancholy truth that the profession is nearly as much at a loss with regard to the treatment of Cholera as it was at the end of the first epidemic. All are agreed that the complaint is manageable in its first stage, but when it has become confirmed Cholera, we have to confess the inefficacy of all the modes of treatment hitherto adopted in the disease. But certain facts of great hygienic value have been established by the successive returns of the epidemic. We think one of these is, that the poison which generates it is portable. We do not think this admits of a question. Another is, that the places visited by it once are those which are most liable to suffer on its return. Not only the towns

and villages which have experienced it, but the particular localities in such places, and even the very houses, it is said, are those in which it is now reappearing. A third is, that evacuating such houses and neighborhoods often puts a stop to the disease. Crowding seems to be one of the most efficient of its exciting causes. The obvious policy therefore is, if the plague should appear, to remove from the infected house or district. In all places where the epidemic has prevailed, there have been *foci* where it has manifested peculiar intensity. The inhabitants of such neighborhoods ought to fly at the approach of the pestilence. We have seen the happiest effects, in the country, from dispersing the negroes on a plantation when the disease broke out among them. On sending them into the woods, into temporary sheds, we have repeatedly witnessed the subsidence of the complaint.

It is well ascertained that the night air of infected districts is especially pestilent. Physicians attend the sick during the day with impunity, but nurses and those who sleep in them are exceedingly apt to be attacked. We have had cholera in Louisville repeatedly, but it has always exhibited its chief severity in a few limited districts. It has never been general in the city. Now, it appears to us, nothing can be more rational than to quit those districts, if the plague should again visit them. Filth, undoubtedly, is favorable to the spread of cholera,—and we cannot be too much on the alert to remove all such sources of the poison. But we should rely much more upon flight. Removal to a very short distance is often sufficient. When the pestilence visited us last, in the summer of 1851, its ravages were almost wholly confined to the corners of four squares at the end of one of our market houses. All other parts of the city were almost entirely exempt.

EPIDEMIC OF 1853 IN NEW ORLEANS.

THE REPORT of the "Howard Association of New Orleans," contains some instructive statistics in relation to the epidemic yellow fever which lately desolated that city. Thus, it appears that of 11,088 cases which came under the care of the Association, 5,845, or more than one-half, occurred in natives of Ireland, while

only 716 were afforded by our native population. Among Germans there were 2,890 cases; 198 in natives of England; 56 Scotchmen; 436 Frenchmen, and small numbers among the natives of most other countries. Of the whole number 5,203 were males, and 5,885 were females; 9,415 were adults, and 1,673 under sixteen years of age. The number that died was 2,942, and of those discharged cured 8,146.

The amount of money disbursed by the Association was $159,190 32, and the amount contributed $228,927 46, leaving a large balance in their hands for future charities. We remark that of this large sum expended, less than $15,000 went to Physicians for professional services, while the medicines cost over $19,000, and the amount paid for nursing patients at their residences was a little more than $25,120.

The Association give a most satisfactory account of their stewardship, and their Report will everywhere be read with interest. They say justly, that the example of fraternal fidelity and devotedness exhibited by our people on this memorable occasion is one which has few parallels in the history of men.

THE LATE PROFESSOR HORNER.

Professor Jackson, in his introductory lecture delivered in the University of Pennsylvania, at the opening of the present session, commemorative of the late Dr. Wm. E. Horner, details some interesting and affecting incidents in the life of that eminent teacher and physician. He says:—

"It would not be doing justice to Dr. Horner, or give a correct idea of his energy, self-command, and indomitable resolution, or a true conception of the disadvantages under which he labored, the long unceasing struggles he sustained in his progress, and the heavy cost at which his success was attained, did I not reveal a peculiarity of temperament, or psychical idiosyncracy, never observed or suspected to exist, by his most intimate associates and friends, or even by a large portion of his family circle.

"While his exterior life appeared clear, bright, calm and prosperous, his interior life was dark, desponding, agitated with vague apprehensions, and every mental effort a conflict, a struggle, and a victory."

Prof. Horner, in a journal which he kept for a number of years, quoted by his biographer, thus describes his "constitution."

"It was considered at school that I learned with facility; but I never believed it. I have had headache or dull pains in the head three-fourths of my waking life, seldom acute, but always such as to make me uncomfortable, and prefer solitude to company.

"Short intermissions of this state of suffering have occurred. I have then felt illuminated as the earth is when the sun emerges from behind a cloud. I have then hoped for a pleasurable existence, but it proved delusive, and I quickly relapsed into my ordinary state. Considering this serious obstacle to mental improvement, I wonder how I have made any advances, and especially such as to have given me an honorable station among men."

In another place he says:—

"My spirits get into so deplorable and hypochondriac a state that I have a thousand times thought death would be a most welcome visiter, and have almost envied those whom I have just heard to have passed from the bondage and anxieties of this life.

"As I grow older, my system is evidently getting more and more under the influence of the preceding causes. From the smallest article of food used in the evening, the next morning I am rendered uncomfortable in the extreme; my mental faculties are hebetated, and I am so vertiginous as scarcely to be able to collect my ideas or go on with a demonstration. The latter state has indeed become so constant and frequent, that I have frequently thought my labors as a public teacher were becoming too imperfect and confused to deserve respect, and that it would be better, perhaps, for me to retire and seek for some other occupation."

He wrote thus in his journal, in 1829:—

"I go to bed dissatisfied, taciturn, and looking for no greater comfort on the day to come, than I have enjoyed during the day past. Such is the unprepossessing picture of my life at the present time, and such has it been during the last six weeks; enjoyment has ceased, happiness has fled; I am inactive, worthless, lethargic."

And a few weeks afterwards he wrote as follows:

"I find it vain to resist the current of one's nature. I am at the present moment, just as I have been for the last four months, a confirmed and dissatisfied *ennuyé*. Discontented with myself and feeling no pleasure or satisfaction in the things around me, and finding every plan abortive, either in study, religion or amusement, from which I hoped to obtain that steady and enduring

quietude of mind, which I have on former occasions enjoyed. I must now make up my mind to move down the current of life on those terms that destiny, my peculiar nature, and my particular pursuits seem to have imposed unchangeably on me. I thank my Creator for the many unmerited favors I have received, and am constantly receiving at his hands. I ask pardon and forgiveness for the ingratitude of my nature, which prevents my mind from being illuminated with a single ray of joy, in reflecting on all His goodness. In the midst of the means of happiness, I am the victim of an unhappy destiny; my mind is cast in a mould which makes it insensible to the best gifts of Providence; and all that remains for me, is to submit resignedly during the remainder of the voyage, now drawing to a close, down the overflowing stream of time."

And yet, as remarked by Prof. Jackson, "the unhappy and disabling affliction," recorded in these memoranda, "was manifested by no exterior sign," and the fact that Dr. Horner was the subject of such a melancholy will take by surprise those who were accustomed to see him in his daily walk. Of course, the source of his mental disquietude was some physical derangement—some morbid condition, most probably, of the brain, which was only a little less intense than that which drove the amiable Cowper to the brink of insanity. It shows the heroic character of Dr. Horner's mind, that he was able to go forward under such a gloom in the discharge of his manifold duties without a murmur or one word of complaining.

HOMŒOPATHY.

It is a question with many persons whether it is good policy in our profession to notice the medical delusions that are continually springing up; whether a consequence greater than they would otherwise attain is not given to them by the opposition of scientific physicians. There are those who would leave them, as the traveller does the noisy insects in his path, to die a natural death. They succeed each other rapidly, to flourish for a season, and then pass into the limbo of forgotten things. But another party would pursue a different course. They insist upon the expediency of exposing each new humbug as it is blown into existence; and for

ourselves, we confess, we incline, not exactly to the belligerent system, but to giving the people light. If we as a profession withhold it, from what quarter can it come? Unless the false systems ever and anon arising are exposed by medical men, how are they to be exploded?

This view of the matter is taken by PROF. SIMPSON, who, deeming a further and fuller exposure of Homœopathy expedient, has written the most elaborate refutation that the popular delusion has yet called forth. The following capital anecdote is given, and illustrates the manner in which Homœopathists are occasionally made. The professional friend alluded to by Dr. S., is PROF. HENDERSON, of Edinburg, one of the most noted Homœopathists in Great Britain.

"Some eight or ten years ago, and old schoolmate of Dr. Simpson having begun business as a homœopathic druggist in Liverpool, kindly sent Dr. S. a present of a small box of homœopathic medicines, and a very beautiful painted box it was. During the time it was in Dr. S's. possession, he put it only to one use, viz., he gave it as an occasional plaything to his eldest son, who was then a child. The boy, revelling in his permitted amount of mischief, used in his sport to uncork the small bottles, empty their globules into a heap, and then refill the bottles from the general mass. Of course, this had speedily the effect of altering and disarranging the contents of the entire lilliputian drug shop; the globules pertaining to the different bottles were more or less thoroughly mixed together; and sometimes, when the child was tired of his occupation, others at last refilled the bottles from the general heap. A professional brother happening to call at Dr. S's. house one day when Dr. S. was absent from home, saw the box, and put it in his pocket. Many weeks afterwards, the new proprietor of the box met Dr. S., and told him that he had been trying to practice homœopathically, at which Dr. S. expressed his regret; and he added that he had seen some wonderful effects and cures from using the drugs contained in Dr. S's own former homœopathic box! Wrongly, perhaps, as Dr. S. now thinks, he did not at the time tell this physician that the globules of the bottles which he had been using were elaborately commixed; but the whole struck him as so good a joke at the moment, that he thought he would reserve it to bring it out upon his friend on some future and more ripe occasion, for the purpose of laughing him out of his homœpathic delusion. But, unfortunately, matters hastened rapidly on; the physician became more and more a homœopathist; and then it became too serious a matter to joke about, when he actually published a list of supposed homœopathic cures."

ADVANTAGES AND PLEASURES OF A PHYSICIAN'S LIFE.

From the eloquent Introductory Lecture of Prof. Knight we make the following extracts, and only regret that we have not space for more:—

"Another advantage of the medical profession is, that the mind of the physician is not, and if he is in any degree faithful to his duties cannot be, continually occupied with mere pecuniary matters He has a right, to be sure, to look forward to a fair remuneration for his services, and usually receives it; but his mind must be mainly occupied with other and higher interests. His duty to his patients, his anxiety for their recovery, his careful study of their diseases and of the means of relieving them, will engross his best and most diligent thoughts, and he will soon find that there are other books more interesting than his day-book and ledger. It is a misfortune attached to any employment, that its pecuniary results are its principal attraction. The business that is necessarily begun and pursued under the influence of the often-repeated and much-praised maxim, a penny saved is two pence clear, and a pin a-day is a groat a-year, cannot do much in elevating the mind, or ennobling the feelings, or in raising the man much above the earth on which he dwells.

"It is true that such employments may be, and often are, followed by the liberal-minded man, without self-deterioration; still their tendency is to belittle the mind, and to narrow the feelings into the compass of selfishness. I do not mean by this that a business is to be avoided as injurious merely because it is profitable; a gainful employment may be safely followed, so long as the occupation which it gives to the body and mind is its principal attraction.

"The mechanic may construct a machine in the hope of a large reward, and yet receive a far higher gratification from the successful exertion of his faculties, and this may be, and often is, the controlling motive of his labor rather than the pecuniary result. The merchant, while his gains are counted by thousands, may yet be more richly rewarded by the consciousness that his is the controlling mind of large and important interests, that he is successful in developing the resources of his country, and that he is ministering largely to the happiness of his fellow men. In all such cases, though accumulation may follow thrift, yet to accumulate is not made the chief purpose of life. From the temptation so prevalent in many other employments, to pursue gain with

greediness, the physician is guarded, by the full and constant preoccupation of his mind by other and higher thoughts, as well as by the early-learnt truth that such a pursuit will be unavailing. The physician who engages in his business with the purpose of becoming rich, uppermost in his heart, is very apt soon to leave it, and to become the nostrum monger, or the "pathy" follower, or to engage in some pursuit more congenial to his spirit, and more likely to gratify his desire. This freedom from temptation to petty gains, and resulting avarice growing out of the business of the physician, is one of its important advantages.

"Another advantage of the profession, and one which contributes largely to the happiness of the physician, is that it compels him to possess or to assume cheerfulness of disposition, kindness of demeanor, and a readiness to perform acts of beneficence. These constitute no inconsiderable portion of his stock in trade, and without a liberal share of them he will soon become bankrupt. He must be kind to his patients, considerate of their feelings, patient of their complaints though they may often seem to be unreasonable, and ready to afford them consolation and relief. He must therefore cultivate these feelings until they become a part of his very constitution. He who commences a course of this kind from the necessity of his position, will soon learn to continue it from the love of it; as the features which often called upon to express any one of the strong emotions of the mind, joy or sorrow, pleasure or pain, will become ultimately formed or moulded, so that what at first was transient, will become their habitual expression, so the mind into which any strong emotions habitually enter, whether of necessity, and more especially, when of choice, falls more and more under the influence of such feelings, until it becomes the controlling power of its actions. This in-working of the kind feelings which he is so often called upon to express and to experience, is so effective, that it is rare to find a physician advanced in life, who is other than a cheerful, social and benevolent man. The influence of this state upon his own happiness can hardly be over-estimated. It is a law of our nature as definite and as operative as the law of gravitation in its effects upon material bodies, that to do good to others, is to gain it for ourselves, and that our own happiness is very nearly in proportion to the active exertions which are made to promote the happiness of our fellow men.

"After all, however, the chief source of the physicians enjoyment springs from the successful result of his efforts to relieve distress, remove disease, and rescue the dying from their danger. As very much of his often disheartening anxiety and despondency is occasioned by the unfavorable termination of the cases submitted to his care, so his greatest joy grows out of those which end favorably. And it is to be remembered that by far the larger number of cases, even of dangerous diseases, end in recovery. There is a

pleasure, unappreciable except by experience, in the consciousness of power over disease and of ability to conduct it to a favorable end; there is joy that the life of one dear to many and perhaps important to the community, is saved; there is the feeling of gratitude fairly earned and often liberally bestowed. It is doubtful whether the physician ever feels a more honest and gratifying elation, than upon the recovery of his first patient from dangerous sickness. It is difficult to describe the emotion of the physician, who after long watching the progress of a dangerous sickness, first sees the light of hope breaking in upon the darkness with which it has been shrouded."

THE NECESSITY OF RE-VACCINATION.

Dr. G. Benedict, physician to the New York Northwestern Dispensary, closes an article on this subject, in the *New York Journal of Medicine*, with the following summary, the result of his experience in vaccinia as a preventive of small pox.

"That vaccination, properly performed, and repeated until the susceptibility to the vaccine disease is exhausted from the system affords entire immunity from the variolous disease.

"It may seem that, by including so much, my proposition is worthless, as it would extinguish not only the genuine disease, but its modification, varioloid. But we are to bear in mind that one two or three successive pustules may still leave the system unprotected, at least in part. Vaccination should be repeated until nothing like a pustule can be obtained. Let each one observe for himself, until evidence accumulates which shall sustain or overthrow this position; and let no one say that vaccination is not a protection for those in whom the susceptibility to variola is unusually strong, until he first ascertains whether there is not still left some susceptibility to vaccinia."

MAGNESIA IN POISONING BY ARSENIC.

An interesting case is related by Dr. Thomas R. H. Thomson, in a late number of the *London Lancet*, in which a woman took, by mistake, two scruples of arsenious acid. She was relieved by recently prepared hydrate of magnesia, of which not less than eight ounces were administered in the course of a few hours. The advan-

tages of this antidote are, that it is perfectly safe, easy of preparation, and mixed with facility. As very little of the poison, in this case was detected in the urine, the presumption is that it was rendered inert by its combination with the magnesia, and escaped by the bowels.

AMERICAN MEDICAL ASSOCIATION.

The Seventh Annual Meeting of the American Medical Association will be held in the city of St. Louis on Tuesday, May, 2d, 1854.

The Secretaries of all Societies in the Association are requested to forward to the undersigned, correct lists of their respective delegations *as soon as they may be appointed*,—and it is *earnestly* desired by the Committee of Arrangements that the appointments be made at as early a period as possible.

The following are extracts from Art. 2d, of the Constitution:—

"Each local Society shall have the privilege of sending to the Association one Delegate for every ten of its regular resident members, and and for every additional fraction of more than half of this number. The Faculty of every regularly constituted Medical College or chartered School of Medicine shall have the privilege of sending two delegates. The professional staff of every chartered or municipal Hospital, containing an hundred inmates, or more, shall have the privilege of sending two delegates,—and every other permanently organized Medical Institution, of good standing, shall have the privilege of sending one delegate.

"Delegates representing the Medical staffs of the United States Army and Navy shall be appointed by the Chiefs of the Army and Navy Medical Bureaux. The number of delegates so appointed shall be, four from the Army Medical Officers, and a like number from the Navy Medical Officers."

The latter clause, in relation to delegates from the Army and Navy, was adopted as an amendment to Article 2nd of the Constitution, at the last annual meeting of the Association held in New York, in May, 1853.

E. S. LEMOINE. St. Louis.
One of the Secretaries.

N. B. The Medical Press of the United States is respectfully requested to copy the foregoing.

Record of Medical Science.

The Influences of Chloride of Sodium on Absorption and Exhalation; a paper read before the Cook County Medical Society, by Henry Parker, *M.D.*

Among the most important remedial agents having a special influence upon the processes of absorption and exhalation, and the due interchange of these elements, I may mention Chloride of Sodium.

This substance, as the Society is well aware, is attracting the attention of medical men, as a remedy possessing peculiar and important powers in the treatment of certain forms and conditions of diseased action.

That a substance of such free and common use should possess the influences ascribed to it, may naturally excite the surprise and distrust of the ignorant and the charlatan; but the man of science, who sees in disease the absence of some element material and essential to the healthy body, or the presence of one unnatural and pernicious, will, when acquainted with its *modus operandi*, readily understand how it accomplishes certain good.

From some recent experiments, made by M. Bernard, of Paris, upon the effect of this salt upon the blood, he ascertained that it greatly increased the capacity of this fluid for the absorption of oxygen.

Experiment.—Into two graduated glass tubes, containing each equal quantities of pure oxygen gas, he introduced equal quantities of blood freshly drawn from the jugular vein of a dog, without being exposed to external air. One of these tubes contained a small quantity of chloride of sodium. The blood in this tube absorbed immediately thirty-two parts of oxygen, while the blood contained in the tube, with only pure oxygen, absorbed only twenty parts.

Observe what a difference in the relative amounts of oxygen absorbed.

As this experiment of M. Bernard was made upon blood out of the body, and without any special reference to the proportionate

amount of carbonic acid expired, I was desirous of ascertaining how far the internal administration of the salt, would, in its influences upon absorption, affect the exhalation of this excretion, carbonic acid.

With this view, I confined myself for a few days to a diet, plain, simple, and as free from *salt* as could well be obtained. During this interval, a given quantity of expired air was obtained from time to time, in a graduated glass tube of known capacity, over mercury, and transferred to a solution of caustic potassa.

The results of these repeated experiments may be expressed thus:

Whole amount of carbonic acid contained in each given quantity of expired air as indicated by the rise in the tube, 1.25 of a cubic inch.

The experiments were continued sufficiently long to furnish a reliable data, with which to compare future results.

Immediately upon concluding the above experiments, I took liberally of common salt, and especially upon going to bed at night.

The amount of carbonic acid contained in the same given quantity of expired air, obtained the following morning, and at the same hour as in some of the preceding experiments, viz. immediately upon rising from bed, was

Carbonic acid, 3.32 cubic inch.
Sp. G. of Urine, 1.035.

This experiment was repeated several times, observing the same diet, and, as in the former experiments, with this difference only, that I partook freely of salt, and with the same results as expressed above.

Observe what a material difference in the relative amounts of carbonic acid exhaled in each given quantity of expired air, as obtained from these two series of experiments—an increase in the latter over the former of one-hundred-and-thirty per cent.

It will be observed that these inquiries were made with special and only reference to the amount of carbonic acid exhaled, and not with any reference to the quantity of oxygen absorbed.

It is very probable, however, that in the process of absorption and exhalation, these two gases sustain certain definite relations with each other. What the proportion which exists between them may be, is not definitely determined. But that the increased absorption of one is attended by a corresponding increase in the exhalation of the other, I think is true. Blood may contain various gases; but it is evident that it never disengages them spontaneously. "They must always be extracted by displacement, in submitting to it some other gas, for which it may have a stronger affinity. This general rule is applicable to liquids,—these can only lose one of their component elements, by receiving a different one. Exosmose and endosmose, must occur." BERNARD's experiment tends to establish the correctness of this, when applied to

the animal economy. Beneath the skin of a rabbit he injected a quantity of air. In due time this was analyzed, and found not to have diminished materially in quantity, but to have undergone a change. The oxygen only had been absorbed, and carbonic acid occupied its place. From these facts it is very evident that the entrance of one gas into the system is always attended by the corresponding exit of another. Hence the increased exhalation of carbonic acid observed in some of the above experiments—the result of an increased absorption of oxygen.

From the preceding inquiries into the influence of chloride of sodium upon the blood, we observed three important facts:

1st. An increase in the capacity of this fluid for the absorption of oxygen.

2d. An increase in the amount of carbonic acid exhaled. And,

3d. An augmented excretion of urea.

The effects observed upon these several processes are so marked that every intelligent and scientific physician must see the importance of their due consideration, in the treatment of certain forms of diseased action. With these facts before us, we infer that the use of this substance is indicated in those diseases, dependent upon, or accompanied by, a too small supply of the former, and an undue accumulation and retention in the system of the latter.

Does experience confirm this view, and the results of its use in such cases establish the correctness of our deductions? If we call to mind the pathology of those diseases, in which its use has been attended with the most marked benefit, we observe the existence of one or all of these three conditions, viz:

A diminished supply of oxygen, with an abnormal accumulation and retention in the system of carbonic acid and urea.

Congestive pneumonia affords us a good illustration of this,—a want of efficient oxygenation of the blood, and the due elimination of carbonic acid and those morbid substances designed for excretion. This want, oftentimes, if not generally, constitutes the only real source of danger to the welfare of the patient. That other means and other remedies may be demanded to subdue the local trouble, to remove the cause, of which this is an effect, I admit; but the period of time required to effect this is often protracted,—the patient sinking from a want of efficient oxygenation of the blood. This fact indicates the use of such remedy, combined with those adapted to the removal of the cause, as will most effectually promote the due interchange of these elements, viz. oxygen and carbonic acid.

Reasoning then from the known effect of chloride of sodium upon the blood, in promoting the absorption of oxygen and alimination of carbonic acid, we infer that, in this substance, do we find such a remedy.

And the fact, also, that the greatest apparent good results from

its use, when such pathological conditions exist, it seems to me, furnishes strong evidence that its *modus operandi*, or rather, *modus curandi*, is through its influences upon absorption and exhalation.

Does the experience of the Society in the use of this substance confirm this view?

In this connection, also, I might mention, as illustrating farther the *modus curandi* of the remedy under consideration, that class of diseases having a malarious origin, as exhibited in intermittent and remittent fevers. It is not my purpose now to attempt any explanation, or advance any theory relative to the exciting cause of these affections, further than to call to mind what has been advocated by the President of this Society and concurred in by others, viz:

That an important element, concerned in the production and development of miasmatic diseases, is "an atmosphere saturated with moisture, and constituted in part of carbonic acid, sulphuretted and carbonetted hydrogen, and other gases, such as deteriorate the air, both by their poisonous qualities and by their affinity for oxygen;" in a word, there is "defective oxygenation and an excess of carbonaceous material in the blood and tissues."

Now, if this be true, we can readily understand something of the *modus curandi* of chloride of sodium, when used in this class of affections. That it will arrest the paroxysms of an intermittent or remittent fever quite as effectually and promptly as quinine, all, I think, who have had experience with it as a remedy in such cases, will admit. Whence, then, this power? What the *rationale* of its operations? Evidently, is it not through its influence principally upon the blood, in promoting the ready absorption of oxygen, and the free elimination of those substances having a pernicious effect upon the economy? That it may exert *other* influences, and induce other and important changes in the system, all tending to bring about the same beneficial results, is unquestionably true, but as I purposed only to present a few facts relative to its importance as a therapeutic agent in promoting absorption and exhalation, I omit any further consideration of its *modus operandi* not immediately influencing this function.

Much additional evidence might be adduced in further support of the views presented, but as briefness in *society papers* oftentimes constitutes one of their *greatest* merits, if not their only redeeming quality, I submit the subject without further comment, asking for the facts presented and the deductions made, only that candid consideration from the Society which their value or importance may merit.—*N. W. Med. and Surg. Jour.*

On the Use of Cinnamon in certain Examples of Menorrhagia.—T. H. Tanner, M. D., Licentiate of the Royal College of Physicians; Physician to the Hospital for Women, &c., says:—Amongst the numerous cases of menorrhagia which come under my notice in hospital and private practice, instances are not unfrequently met with where no satisfactory explanation can be given for the increased catamenial flow. Of course, amongst these, patients suffering from general plethora, from hæmorrhage caused by polypi either within or without the uterus, or from that dependent upon fibrous tumors, uterine hydatids, ulceration (simple or malignant,) or upon a watery condition of the blood, are not included. In the instances alluded to, I have almost always been unable, after careful examination, to say upon what the menorrhagia depended, since no physical alteration could be detected in either the uterus or ovaries; it has only therefore been practicable to assert what were *not* the causes.

The symptoms usually presented are briefly these; the catamenia appear regularly every twenty-eight days, and are at first only of the proper quantity; but, instead of ceasing after a duration of three or four days, they continue unabated for ten or fourteen, and occasionally even for three weeks. The general symptoms which arise from this debilitating discharge are just as might be expected. There is general weakness, langor, mental depression, with pains in the head, loins, and so on; the patient suffering, it is to be remembered, not from any diseased condition, giving rise to the hæmorrhage, but merely from the loss of blood itself. In other instances the discharge continues a less time, but the flow is more abundant, clots being frequently discharged; this variety is generally followed by leucorrhæa. My own experience tends to show that these forms of menorrhagia occur more frequently in unmarried than in married women; but for many reasons, and especially because of the class of patients from whom my observations are for the most part deduced, I would not say positively that such is the case.

Ailments of this class are at all times troublesome to cure, but those I am considering are particularly so, from the absence of any special indications for treatment. In some of them, indeed, it appears, at first sight, only necessary to keep the patient quiet, to administer astringents, especially such as act particularly upon the uterus, and to regulate the diet, in order to give the desired relief. But it will often be found that these means are quite inefficient, and that the acetate of lead, gallic acid, the ergot of rye, oxide of silver, sulphuric acid, tincture of sesquichloride of iron, and similar remedies may be employed without any avail. In thinking over these cases I was led, from a remark made by Dr. Pereira, to try the use of cinnamon. In the last edition of the "Elements of Materia Medica," this gentleman says, when speak-

ing of cinnamon, that "some writers regard it as acting specifically on the uterus," (vol. ii. p. 1307,) and reference is then made to the writings of Sundelin and Wibmer. As far as I know, these are the principal authors who have recommended the use of this agent; for I am not aware that mention is made of it by gentlemen who have written on obstetrics and the diseases of women in this country. Having thus been led to try the effects of this agent and having derived the most beneficial effects from its employment, I have felt desirous of making its value more generally known, that its utility may be tested on a large scale.

That its beneficial action is really due to some specific effect which cinnamon exercises upon the uterus, and not any astringent property it may possess from the tannic acid which the bark and leaves of it contain in common with all the lauraceæ of plants, is, I think, certain; and partly in confirmation of this view, it may be mentioned, that in a case of labor in which I employed it, it *appeared* not only in a marked manner to increase the severity and rapidity of the pains, but the patient, who had in her previous labours suffered severely from flooding after the birth of the placenta, on this occasion lost only a very small quantity of blood. That this fortunate circumstance was due to the administration of the cinnamon I do not of course pretend positively to assert; the case is merely mentioned to give some color to the opinion expressed that this agent acts specifically upon the uterus. Much clearer evidence of its value in such cases of menorrhage as I have described, is, however, easily obtained. The principal points I would now refer to, are, that it acts after the failure of other astringents; that it is most efficacious given alone, uncombined with other medicines; that if its employment be discontinued too soon, the discharge of blood returns; while, in a few instances it has been found necessary, after an apparent cure, to resort to its employment for the two succeeding catamenial periods, when the menstrual flow, after continuing for three or four days, has not given any signs of abatement, and when the patient has begun to suffer from mental depression and the early symptoms of general debility. The form usually employed, and which appears to be the best, is that of the tincture, in drachm doses, using cinnamon water as the vehicle; it should be taken about every six hours, but not more frequently, as it is apt to give rise to nausea and vomiting. It is also better to continue its administration for about fourteen days after the symptoms which called for its employment have disappeared; and even then, if the case has been an obstinate one, a draught composed of it should be taken once daily for a month.

In concluding these brief observations, I trust I shall not be understood as recommending cinnamon as an infallible remedy in all examples of menorrhagia. All I would wish to assert is, that

in a certain class of cases I have found it to possess properties of great value; and though I might have waited until I had been enabled to test its properties on a larger scale, yet I preferred giving the results of my experience at once.—*London Lancet.*

On some of the Signs of Incipient Pulmonary Phthysis.—M. Bourdon says:—It is known with what difficulty the presence of pulmonary tubercles is diagnosticated when the disease is in its incipiency, and how insufficient the stethoscopic signs are. The latter may be wanting when the lungs contain a large quantity of tubercles; they may exist when the lungs contain none; and they may be masked by different sounds. The general symptoms are not a sure means of detecting the disease; a simple catarrh may be attended with very grave symptoms, while a true phthisis may affect the general system very slightly. It is at the commencement of the disease that the diagnosis is most important, because this is the only time that there is a chance of treating it with any success. M. Bourdon has sought to elucidate this obscure point. Attracted for a long time by the frequency of certain symptoms in phthisical patients, he has studied them with care, in order to establish their value as signs. These symptoms are arranged under many heads, according to the organs in which they show themselves:—1. Gastric symptoms. 2. Hepatic symptoms. 3. Thoracic pain. The gastric symptoms are not to be confounded with the morbid phenomena observed in almost all diseases. Those which coincide with the incipiency of phthisis are nauseas, vomitings, epigastric pains, dyspepsia. You must not wait to find these symptoms in every case; nevertheless, they are extremely frequent, since M. Bourdon found them in more than two-thirds of his subjects. Some phthisical patients suffer from one of these symptoms; others, on the contrary, have them all combined. Nausea and vomiting are most common; and, it is generally after the cough that they exhibit themselves. It must be observed, however, that their frequency or intensity are not at all proportioned to the cough; they occur when the stomach is empty as well as after a repast. Generally the vomitings consist of mucous matter, rarely of bile. Still, while they show themselves with a large number of the tubercles, they do so in a positive manner with very few. Another very common symptom is the epigastric pain. In the largest number of cases, it is accompanied with nausea and vomiting; nevertheless it occurs alone sometimes. With the largest number of patients it is only manifested upon pressure, or is so slight as not to be noticed by the patient until their attention is attracted to it; in a smaller number of patients it manifests itself spontaneously. Although it shows itself both

before and after eating, it is yet most commonly observed after the ingestion of food. Long continued dyspepsia, without nausea or vomiting, is frequently observed. Frequently the gastric symptoms precede the thoracic; but often also they show themselves at the same time or subsequently. Do they imply a lesion of the stomach? is a question which has occupied the author. Sometimes he found the stomach healthy; most frequently it presented some lesion, which was oftenest a papillated state of the mucous membrane. The author thinks the pressure of the tumefied bronchial glands upon the pneumo-gastric might contribute to the disorders of the stomach.

2. The liver sometimes presents remarkable peculiarities. In half the patients examined by M. Bourdon there was an increase of volume, frequently attended with pain. The increase of volume seemed to be particularly observable in the right lobe; the consistence of the organ seeming to undergo no change. The changes of sensibility are less frequent than the changes of volume. Spontaneous pains are rare; they only manifest themselves under pressure, or under some sudden and straining movement. In some rare cases this change of sensibility is observed without change of volume. As to the change the liver undergoes, the autopsies prove that in more than half of the cases it is due to fatty degeneration more or less advanced. The bile is generally of greater density and more highly colored.

3. The largest number of phthisical patients suffer from pain between the shoulders and in the sides of the chest; but, besides these spontaneous pains, there are others to which M. Bourdon calls the attention of physicians, and which are only recognized through the medium of percussion. The points where these pains are discovered are numerous, but they are most often seated below the clavicles, and only on the side affected with tubercles. If both sides are affected the pain is on the side most affected. As to the cause of this pain, M. Bourdon, like M. Beau, is inclined to ascribe it to intercostal neuralgia.

The conclusions drawn by M. Bourdon from his researches are as follows:—When prolonged dyspepsia, nauseas and vomitings are observed, without any assignable cause; when the liver is abnormally developed, without there being hepatitis or disease of the heart; when these phenomena are exhibited independent of any other affection, or in the course of chlorosis, or after measles or typhoid fever; the physician should turn his attention to tuberculosis, examine the patient with great care, and even when there is doubt of the reality of the pulmonary affection, he ought to act as if convinced, or at least he should take his precautions.—*Archives Gen.—Virginia Med. and Sur. Journal.*

A Man who has Slept Five Years.—We called yesterday to see the man who has been asleep for five years, and whose case was detailed in the *Times* some weeks since. We found him in what seemed like a sound sleep. He was lying in bed, his eyes nearly closed, his respiration rather slower than usual, his breathing a little stertorious, pulse some seventy-five strokes in a minute, soft and weak. On attempting to open his eyes, he firmly closed them, and when, by force, the lids were opened, the eyes were rolled upward, so that it was impossible to see the pupils. The mouth was slightly opened; on attempting to open it wider, the jaws were instantly locked. There was a constant tremor of the eye-lids, and from the mouth there was some drivelling. His body was extremely emaciated; his arms were folded upon his breast, and any attempt to remove them was strongly resisted. The muscles seemed rigid and tense when the effort was made, and, indeed, it was impossible, without violence, to change at all the position of his limbs. Once during our stay, he drew a long breath, like a man who is about to turn in his sleep. At another time, he hitched himself up a little in bed. He was lifted up bodily and seated on the side of the bed; his head was still bent forward on his chest, his legs crooked under him at the same angle, and his arms folded as when he was lying. There was nothing to indicate that he would not retain the same position for weeks. We lifted one foot, the other came up with it. There was little or no bending at the knee or at the hip, the feet were raised only as the upper part of the body was carried backwards. He was placed standing upon the floor. It required a few moments to balance him exactly, after that he stood in the same position so long as we remained, there was nothing to indicate that he would not maintain the same posture for a month.

This certainly is a most marvellous case. There is not the slightest chance for any collusion or deception in the matter. Many of our best physicians have examined him—none, so far as we can hear, believe any deception in the case to be possible. From physicians in the western part of New York, and from men of the highest standing, we are assured that the story which is told of him is perfectly true.

His name is Cornelius Vroman, he was borne in Schoharie county, but has lived, since he was seventeen years of age, in Clarkson, Monroe county, not far from Rochester. He was a hard working man, a good worker, temperate, trusty, and, at the time when his strange sleep came on, he was working on the farm of Mr. Moses Jennings. His mother is dead, he has a father and two brothers living in Clarkson. On the 19th of June, 1848, he felt unwell enough to call in Dr. John S. Cole, who found him complaining of some pain in the stomach and in the head, for which he prescribed. After this, without becoming any more sick,

his sleep each night grew longer, until at last it was found impossible to wake him. Out of this sleep he has never come, to remain wakeful for more than sixteen hours at a time, and the aggregate of all his waking hours since the seizure is not over three days. At first they were oftener, but now the waking intervals recur about every six weeks. The last time he awoke was while he was in Rochester, some ten weeks since, which gives us a hope that his waking hour now approaches, and that we may see him in his wakeful condition. When awake, he seems totally unconscious of his peculiarity, and has said some things which indicate that he remembers matters as they were before his change. They say that he straightens himself up then, and walks as limberly as others. Yet now, to handle his limbs, we fear that they must be partially anchylosed. But on this point we are not satisfactorily informed.

His diet consists principally of milk, sometimes with a little bread soaked in it. It is with some difficulty that it can be administered. The jaws must be forced open, as in tetanus, and the liquid poured in between his teeth. Once, he went without any food for five days, but his friends objected to any farther conduct of the experiment, though there was no change in his symptoms during that time. When the seizure occurred, he is said to have weighed 160 pounds, now he cannot weigh over 90 pounds. His height is six feet two inches. The secretion of the kidneys is discharged once or twice a day, it is very high colored, and not much diminished in quantity. Possibly it is from habit, possibly from some remains of consciousness, that in this matter he is subject to the wishes of his attendants. The alvine evacuations are very scanty, occurring not oftener than at intervals of from six to twenty days.

Once he was left standing for three days, there was no change in his position during that time.—*N. Y. Times.*

This individual has since died.—ED.

A CURIOUS CASE OF FRACTURE ABOVE THE THIRD VERTEBRA CERVICALIS.—JAMES W. CLAIBORNE, M. D., of California, relates the following:—DANIEL EDSON, of Fall river, Massachusetts, aged twenty-seven years, fell from a stage about the 10th day of July 1853. The horses were running at full speed, and as he fell from the driver's seat, he thinks he struck his neck on the tongue or pole of the vehicle.. Reaction was slow in establishing itself, and there was such a cadaverous pallor and collapse, that in connection with other symptoms, his recovery was regarded as hopeless. He maintained a horror of moving from one side to another, was speechless, and desired to be kept in a state of absolute rest for a

week or ten days. As soon as the neck was examined, a hard protuberance of osseous firmness was perceived at the back of the neck, on a level with the lobulus pendulus of the ear. It was situated a little to the left of the spinous processes, and under the tendinous origin of the trapezius. It has never increased or diminished in size, and is about the size, of a split walnut. The protuberance is situated in the line of the hair, below which, according to Velpeau, (Anatomy, vol. i, p. 203,) the atlas is seldom situated. It is therefore fair to say, the tumor is above the third cervical vertebra.

There was no difficulty in the breathing, or injury to the phrenic nerve, as might be supposed. The inferior maxilla was for several weeks firmly closed, and it was almost impossible to introduce a spoon between the teeth. The attempt would cause him great pain at the site of the node or protuberance, and an apprehension of danger in the effort. As soon as he was so far recovered as to attempt walking, for many days he would carry his head steadied with a hand over each ear, and at present, some three months after the occurrence, he has but few of the motions of the head. The motion backwards is impossible, and it is only very recently that he has attempted to look down at his feet. With regard to rotation, he turns the head easily towards the tumor which is on the left side of the spine, but it causes him much pain to turn toward the right. Swallowing was greatly interfered with, and for some time after the event he was often troubled with a feeling of there being a small substance lodged in the pharynx. He further informs me that some few weeks ago he received a blow or jar upon the crown of the head, and that he felt a grating or crepitation a little below the occipital protuberance of the right side at that time.—*Va. Med. Gaz.*

External Stimulus in Cholera.—The resources of professional judgment in the treatment of Cholera are not so numerous and efficient as to render a somewhat novel remedy unacceptable to those whose lot it may be to undertake the charge of many cases. I am indebted to a lady of heroic mind and great intelligence for the hints which led me to adopt in the collapse of cholera the powerful external stimulus which I shall presently describe. It appears that in the most desperate cases, even when life has appeared extinct, the native Indians are accustomed to apply the actual cautery freely to the abdomen, not unfrequently with the happy result of restored vitality. The remedy, based on the same principle, which I have employed in three cases with complete success in the borough jail of Newcastle, is precisely similar in kind, though somewhat less harsh and formidable in degree. A

piece of linen dipped in brandy is placed over the epigastrium or abdomen, and ignited; the brandy burns away in a minute or so, producing a considerable feeling of pain, which renders it necessary to secure the hands of the patient. Slight vesication will probably follow, and, if successful, in a short time heart and pulse begin to return, and the feelings of the patient are greatly improved; vomiting will also generally be put a stop to. It is probable that the application may soon require repetition, the situation being somewhat varied. In one case, now convalescent, in which death was apparently close at hand, the most complete effect was produced by a third application along the spine in the lumbar region. Time will not permit me to give details of cases, but having now tried the "brandy blister" in seven or eight cases of total collapse, I repeat that in three it has been entirely successful, and in others has had the effect of temporarily rousing the patients; and if, as experience has taught me, in some of these it had been repeated with more energy, greater success might possibly have resulted. The patients now convalescent say that it is a severe remedy, but are quite conscious of its beneficial effects, and attribute to its use, without any hesitation, their restoration from impending death.—*Mr. Greenhow in London Lancet.*

Mortality from Cholera influenced by Elevation.—It was discovered during the epidemic cholera of 1848–9, in London, that the rate of mortality by that disease was nearly in the inverse proportion of the elevation of the ground on which the dwellings of the inhabitants stood. The same relation between the rates of mortality at different elevations, though the deaths have been comparatively few, has hitherto been observed in the present epidemic. The mortality from Cholera in the districts at an average elevation of less than 20 feet above Trinity high-water mark has been 31 in 100,000 inhabitants; in the districts of an average elevation of 20 and below 40 feet (20—40 feet) the mortality has been 16 in 100,000; at an elevation of 40—60 feet the mortality has been 11 in 100,000; at 60—80, it has been only 4; at 80—100, only 3. Marylebone, at an average elevation of 100 feet, is the only exception to the law; the mortality has been there 13 in 100,000. At Hampstead, where the elevation may be put at 350 feet, there has hitherto been no death from Cholera. Exceptional circumstances disturb the average in particular districts; but it is a general rule that the danger of dying of cholera, and of all plagues, diminishes within certain limits in proportion as the dwellings of the population are raised above the level of the sea. —*Med. Times and Gazette.*

On the Local Application of the Vapor of Chloroform.—In an article in the *Dublin Quarterly Journal*, Dr. Hardy gives several examples of the application of the vapor of chloroform to the vagina and neck of the uterus, in painful affections of these parts, by means of an instrument which he has invented for that purpose. The following are his conclusions:—

"In observing the effects of chloroform as applied locally in the form of vapor in the above cases, I have endeavored to obtain as correct a notion of it as possible, in order that a true estimate might be arrived at of its value as a remedy. Besides the cases here recorded, I have applied the vapor locally in various other forms of irritation. One of these in particular, I was anxious to know its action in—namely, *pruritus pudendi*, a disease exceedingly troublesome and unpleasant to the patient, and for the relief of which she is often very reluctant to ask a remedy until forced to do so. I have used it in a case of this kind in the person of a very intelligent patient, who for a length of time had been annoyed, particularly on the approach of a menstrual period, by this distressing complaint, for which she had made use of various remedies. The vapor of chloroform, she informed me, afforded her relief from her uneasy sensations. On referring to one of the cases (Case v.) detailed, it will be seen that there was a very severe sense of scalding in the vagina, which seemed to depend a good deal on uterine irritation. Knowing the heat caused by the vapor of chloroform, I feared this patient should have suffered severely from its application; but, on the contrary, she was quite relieved of it; so in *pruritus pudendi*, arising from a similar cause, the like results have been obtained as in her case.

"If future investigations as to the effect of the vapor of chloroform when locally applied coincide with the results already observed in the series of cases herein detailed, it seems reasonable that the following conclusions be considered deducible:—

"*First.* That in many forms of disease attended with pain or irritation, the local application of the vapor of chloroform will frequently act as quickly in affording immunity from suffering as though inhaled in the usual manner.

"*Secondly.* That the vapor locally applied is not attended with any unpleasant effects (save the sensation of more or less heat) either at the time or subsequently, and is therefore eligible under circumstances contra-indicating its use by inhalation.

"*Thirdly.* That as a remedy its local application is preferable to the use of opium and most narcotics in spasmodic and painful affections, particularly of the uterine system, owing, first, to its freedom from causing derangement of the digestive organs, and, secondly, to its greater rapidity of action."—*N. Y. Jour. Med.*

Chloroform in Hypochondriasis.—At the meeting of the College of Physicians in Ireland in June, Professor Osborne stated that he had lately, in two cases, opportunities of observing a peculiar effect of chloroform taken into the stomach, in controlling the depressing and saddening feelings belonging to hypochondriasis. Considering that state to be produced by a depraved sensibility of the stomach or colon, and frequently of both, he was led to the internal employment of chloroform, which, being promptly volatilized at the temperature of the stomach and before being decomposed by the process of digestion, ought to be expected to act as a local anæsthetic, even though the dose should not be sufficient to produce any change in the function of the brain.—*Dub. Quar. Journal.*

Veratrine in Rheumatism.—Some marvellous results have followed the use of veratrine in articular diseases. The trial was made by M. Trousseau, who gave the tenth of a grain in a pill the first day; two on the second; three on the third, and so on increasing the dose, one pill each day, until it reached six or seven. Its action appears to be most decided in breaking down the inflammatory action. It is maintained that it has anti-rheumatic virtues and from its influence over the pulse it may be found by further trial, to be a most valuable therapeutic agent in all these arthrodial affections.—*Iowa Medical Journal.*

Felt Splints; *by* F. H. Hamilton, *M. D.*—Some years ago, I think in 1845, felt splints were brought to me by an agent of the manufacturer. The felt was sold in sheets, and also in pieces, modelled so as to be readily adapted to the form of the limbs. In some respects it was superior to gutta percha, and I am inclined to think that on the whole it was the best splint ever used. I cannot learn that these splints are now manufactured in any part of the United States, and I will therefore enclose you the recipe for making them, which was kindly given me by the agent, and which I have frequently used myself:—Dissolve three pounds of gum shellac in two quarts of alcohol. It should be dissolved in a tin vessel, furnished with a tight cover to prevent evaporation.—Spread a piece of old or new woolen cloth on a board, and with a clean brush saturate both sides of the cloth with the solution. Hang it up until it is thoroughly dried. Lay it again upon the board and apply a second coat of the solution to one side only of the cloth. Dry again, and apply a third coat to the same side. There will now be three successive layers upon one side and one

on the opposite. While the last coat is yet fresh, fold the cloth so that the side having three coats shall be applied to itself. Now, with a hot flat-iron, smooth and press the surfaces together. When it is cold, a slight rubbing with sand-paper makes it fit for use. It becomes a firm, almost unyielding board, but exposure to a moderate heat will make it pliant, so that it can easily and accurately be adapted to any surface.—*Buff. Med. Jour.*

Poisoning by Atropia applied to the Conjunctiva:—The *Gazette des Hopitaux* gives an account of a case of poisoning by atropia, which is remarkable for the small quantity employed, and the place of application, vix: the healthy conjunctiva. A patient in the Hospital, Saint Antoine, was laboring under double cataract complicated with adhesions of the iris to the lens. In order to ascertain exactly the condition of the eyes, three or four drops of a solution, containing about one grain of atropine to two ounces of water acidulated with acetic acid, were instilled into each eye. Half an hour afterwards the patient suffered from vertigo, and complained of disagreeable, unusual sensations; three quarters of an hour later he manifested all the symptoms of poisoning by belladonna,—redness and animation of the face—pupils, though irregular, enormously dilated, incessant hallucinations, seizing the bedclothes, and grasping at objects in the air. He could not raise himself from his bed, nor advance a step without being supported, as his limbs trembled and gave way at every effort. Pulse full, and beating one hundred and twenty. These symptoms gradually passed off, but the patient did not recover his normal condition for three or four days afterwards. Being interrogated upon the delirium and hallucinations of the preceding days, he had only a vague recollection of what had passed.—*Dublin Medical Press.*

Obituary Notice of Arago.—A life of so much labor had worn down his health. Although attacked with diabetes, he still contemplated putting the last touch to his unfinished works. Bright's malady set in and aggravated his situation, which was complicated with dropsy of the abdomen, attended with effusions, and swelling of the extremities. All announced his approaching end; yet his mind was not for a moment obscured. Shortly before his death, although blind, he superintended in some difficult researches; he asked M. Babinet to prepare for him a table of more accurately determined numbers for the lengths of undulations, that he might bring to completion a memoir on interferences; and he finished the editing of his Physical researches on the Planets, &c.,

&c. He died in the midst of these arduous occupations, on the 2nd of October, at the age of sixty-seven years and a half, a few minutes after having shaken the hand of M. Biot.

We have mentioned some of the works which Arago accomplished in his younger days. These works were completely eclipsed by the discoveries to which his name has since become attached, which embrace the following principles:

1. The discovery of chromatic and rotatory polarization.
2. That of Electro-magnets.
3. That of the magnetism which is developed when bodies are revolved near a magnet.

Arago was an Encyclopedic genius. Science, Literature, Political and Social Economy, his vast intelligence embraced all with equal ability. His powerful faculty of assimilation, popularization, and of application of principles, placed him everywhere in the first rank. Whether Orator or Professor, he shone with brilliancy both in political and scientific assemblages. He was distinguished for the perspicuity and elegance of his style, and occupies an eminent place among the prose writers of France.

In the midst of so much grandeur, Arago led a most modest life. He considered as lazy whoever did not work fourteen hours a day; and such days were for him days of repose. Although so absorbed with his occupations, he still found time to appear in the society of Paris as one of its most spirited conversationists.

While devoted to continued labor, he completely forgot his own interests, and had only what was barely necessary for the support of his family.—*American Journal of Science.*

DYSMENORRHŒA.—In Germany the bi-borate of soda is used in conjunction with ergot, to produce uterine contraction, and alone to facilitate the excretion of the menstrual fluid. Dr. Bennett, of London, regards it as an important agent in fulfilling the latter indication, and employs the following formula in many cases of dysmenorrhœa:—℞. magnes. carbon., gr. v.; pulveris rhei., gr. ij.; sodæ biboratis, gr. x.; infusi columb., ℥j.; *ter die summend.*—*Med. Times and Gazette.*

The Western Journal

OF

MEDICINE AND SURGERY.

MARCH, 1854. NEW SERIES. VOL. I.—NO. 3.

ART. I.—UNVERSITY CLINIQUE.—CASES AND OBSERVATIONS IN SURGERY.

BY S. D. GROSS, M. D., PROFESSOR OF SURGERY IN THE UNIVERSITY OF LOUISVILLE.

CASE 1.—*Scrotal Hernia.—A Fact in Legal Medicine.*

THE present case is one of scrotal hernia, the tumor, as you perceive, being of large bulk, and, as I learn, of fourteen years duration. The patient, whose name is Marsahll, is an Irishman, aged 74 years, of intemperate habits, and a shoemaker by occupation. The disease, it appears, came on without any assignable cause. The protrusion, which exists on the left side, has never occasioned him any pain, and he has, therefore, permitted it to pursue its own course, having never worn a truss or suspensory bandage. It is impossible to determine, from the history of the case, whether the parts originally passed through the internal ring, or whether the rupture was one by the direct descent, as it is called. The tumor, at present, is twelve inches in length, and nearly two feet in circumference, at its widest part, which is at the middle; its figure, as you perceive, being somewhat pyriform. It is firm, but somewhat elastic to the touch, and can be handled rather roughly without giving pain. The testicle is situated at its inferior extremity, and the head of the penis is nearly buried in its substance above. From the fact that the man has incontinence of urine, which constantly dribbles off, he is very uncomfortable, and not a

little offensive. He frequently experiences dragging sensations and colicky pains in the abdomen, and the bowels are habitually constipated. The contents of the tumor are, in a great measure, irreducible.

To render the case of Marshall instructive to you, it is necessary that I should offer some remarks upon the nature of the disease with which he is afflicted. We have just seen that the tumor, which is an unusually large one, is irreducible. The question, then, arises, how has it become irreducible? Upon this subject the patient is unable to afford us any intelligence, and hence we are necessarily left to our own conjectures respecting it. If we could cut down upon the parts, and examine them as they lie in their prison-chamber, we could very easily determine the question; but such a procedure would be unjustifiable, and is not for a moment to be entertained. Experience has shown that various circumstances may render a hernia, originally reducible, ultimately irreducible. Among these, one of the most common is the formation of adhesions between the protruded parts and the inner surface of the sac, produced by effused lymph. Sometimes bands of this substance are extended across the protruded parts, or from the protruded parts to the sides of the sac, thus tying them to each other, and rendering their replacement impracticable. Occasionally the irreducibility depends upon the abnormal enlargement of the parts, induced by their long residence in their unnatural and extra-abdominal situation. Both bowel and omentum may undergo this change, but it is well known to be much more frequent, as well as much more extensive, in the latter than in the former. Again, the cause may reside in the ring, or aperture of descent, which may be rendered disproportionably small; or the protruded viscera may contract adhesions to the edges of the opening, and in this manner they may be prevented from re-ascending into their original situation. Finally, the surgeon may be unable to effect a reduction on account of the long sojourn of the hernial contents on the outside of the peritoneal cavity, and the consequent diminution of the size of this cavity, thereby destroying its capacity for the reception and accommodation of the dislocated viscera. Whether the latter cause has any agency in preventing a reduction in Marshall's case, we cannot positively

assert; but it is reasonable to suppose that it has, especially when we take into consideration the size and age of the tumor.

We must inquire, in the next place, into the nature of the tumor. I have stated that the man has scrotal hernia, but I have not yet given you any reasons for my opinion, and, unless this be done, the chief interest of the case will be lost to you. From your knowledge of scrotal hernia, superficial as it may be, you are aware that this disease is liable to be confounded with other affections, particularly with hydrocele, varicocele, and sarcocele. In a case like the present, where the symptoms are so well marked, mistake is hardly possible; but you must not expect always to have the disease spread out before you in so clear and tangible a form.

The disease with which such a tumor as this is most liable to be confounded is hydrocele. From this, however, it may always be distinguished by bearing in mind the following circumstances: Hernia always begins above, showing itself, in the first instance, as a tumor in the groin, from which it gradually descends into the scrotum. In hydrocele the reverse is the case, the swelling commencing below, and gradually extending upwards. In hernia the tumor is irregular in shape, generally more or less flattened in front and behind; whereas in hydrocele it is usually pyriform, being larger below than above. In hernia the testicle is at the bottom of the tumor; while in hydrocele it is at its posterior surface, commonly above the junction of the inferior with the two superior thirds, though this arrangement, as I remarked to you on a former occasion, is by no means constant; for in many cases of hydrocele the organ lies at the base of the swelling. In hernia the tumor is doughy, or gaseous, not elastic and fluctuating as in hydrocele; opake, and not translucent; in the former the patient usually experiences disagreeable dragging sensations and colicky pains, especially when the protrusion is very large; while in the latter he suffers no inconvenience save what results from the volume and weight of the swelling. In reducible hernia the contents of the tumor are easily replaced when the patient is recumbent, but re-descend the moment he resumes the erect posture; while in hydrocele no such changes can possibly occur, whatever may be the posture. When we add to these symptoms the fact

that the spermatic cord is always behind the protruded parts in hernia, and, consequently, much less distinct in its outline than in hydrocele, in which it can almost always be felt as a firm, rounded body at the upper extremity of the tumor, and the circumstance that the opening through which the rupture has taken place can always be satisfactorily traced with the finger, while in hydrocele the inguinal rings retain their natural form; we shall have no difficulty in arriving, in the majority of instances, at a correct decision. Much valuable information may also be derived from the history of the case, and from the use of the exploring needle, which, whenever there is any doubt about the matter, will not fail to afford the requisite light.

Scrotal hernia can always be readily distinguished from varicocele by the peculiar feel which the enlarged veins in this disease impart to the finger, which is similar to that of a bundle of earthworms, or of the intestines of a squirrel; by the bluish appearance of the tumor; and by the circumstance that the swelling, after being effaced, is always promptly reproduced when the patient is placed erect, and pressure is applied to the external abdominal ring. In reducible hernia, on the contrary, such a procedure necessarily prevents the re-formation of the tumor. In hernia, moreover, the swelling receives a distinct impulse under coughing and other muscular exertion; while in variocele the parts are perfectly passive.

In sarcocele the best guides are the history of the case, the uniform hardness of the swelling, the normal state of the abdominal rings, the inability of the surgeon to affect the volume of the tumor by his manipulations, and the indurated and distended condition of the scrotum. When the disease is associated with hydrocele, a part of the tumor will be likely to be translucent, soft, and fluctuating; thus strikingly contrasting with the remainder.

Solid tumors—fibrous, adipous, sebaceous, cystic, and encephaloid—developed in the scrotum, testicle, or vaginal tunic, are, in general, easily distinguished by their progress, by their form and consistence, by the nature of the local distress, and by the presence or absence of constitutional involvement.

The next question we are to consider in regard to this disease

is the *treatment.* This, in the case before us, resolves itself into very simple means. If the affection were recent, an attempt might be made to reduce the parts, or, rather, to render them reducible, but the time for this has passed by, and we must, therefore, content ourselves with palliatives. For this purpose the tumor should be constantly supported, both day and night, with a suspensory bandage, provided with shoulder-straps, otherwise it will answer the purpose but indifferently. By means of such an apparatus the patient will be relieved of much of his inconvenience, at the same time that the protrusion will be pretty effectually guarded against further increase. Great attention should also be paid to the bowels, which should be constantly maintained in a soluble condition. The diet should be plain and simple, easy of digestion, and comprised in the smallest possible bulk, lest the alimentary tube should suffer from flatulence and fœcal distention. All violent bodily exertion, fatiguing walks, and exercise on horseback must be carefully avoided. Such, gentlemen, in a few words, are the means to which we are restricted in the case of Marshall. I have said nothing about the treatment of his incontinence of urine. For the relief of this, I shall order for him, three times a day, thirty grains of bicarbonate of soda, dissolved in a third of a tumblerful of cistern water, and taken about two hours after each meal. The alkali may, perhaps, assist in allaying the morbid sensibility of the mucous membrane of the neck of the bladder, by correcting the acrimony of the urine, and thus rendering the organ more tolerant of its contents. Generally, however, but little benefit results from any mode of treatment that can be adopted, and the poor patient is obliged to bear with his infirmity the remainder of his days. Such an event is particularly to be looked for when the disease depends, as it often does, under such circumstances, upon paralysis of the bladder, and not upon mere irritability of the mucous membrane.

If Marshall's case were one of recent standing, an attempt might be made, and not without some prospect of success, to render the hernia reducible, by removing the adhesions which have led to the incarceration of its contents. The treatment necessary for fulfilling this indication would consist, first, in the observance of the most thorough and persistent recumbency; secondly, in

the use of the smallest possible quantity of food consistent with the preservation of life; thirdly, in the steady and careful suspension of the parts; fourthly, in the application of sorbefacients; and, finally, in the exhibition of mercurials with a view to the production and maintenance of slight ptyalism. When the patient is robust and plethoric, general bleeding and active purgation are premised; but in ordinary cases these remedies are uncalled for. Under this treatment, carefully persisted in for several months, the morbid adhesions are occasionally destroyed, and the parts rendered reducible. Little confidence, however, it must be confessed, is to be placed in it, and in the few instances in which I have tried it it has utterly failed.

In connection with the case of Marshall, I may mention another, of a similar nature, which has lately occurred in this city, and which has been a source of much interest in a medico-legal point of view. I allude to the case of an old gentleman of the name of Lyens, a resident of Market street. This man, who is about sixty-three years of age, and who is married and the father of a numerous family, was prosecuted, a short time ago, in our County Court, on account of rape and bastardy, alleged to have been committed upon an Irish female, a widow, formerly in his employ as a house-servant. At the time of the trial the child was two months old. A number of witnesses, professional and non-professional, were subpœnaed on both sides. For the proof of the bastardy, the testimony of the mother of the child was exclusively relied upon. She stated that some time in the month of March last the defendant had knocked her down, and that, while she was in a state of partial unconsciousness, he had ravished her person, conception being the consequence. Unfortunately, however, for the validity of her testimony, it was proved that she was delivered, precisely eight months after the occurrence, of a full grown child. Her testimony, moreover, was in many other particulars extremely loose and contradictory. On the part of the defendant, it was shown that he had been affected, for several years, with a large scrotal hernia, which had incapacitated him for sexual intercourse, by retracting the verile member, and preventing successful emissions. The tumor, according to my admeasurements, was twenty inches in circumference, and nine inches in length when the man

was recumbent, and nearly twelve inches when he was in the erect posture. Occupying the right side, it was irregularly pyriform, and exquisitely tender on pressure. The testicle was situated on the lateral aspect of the tumor, near its middle, and almost directly opposite the left. The entire penis, with the exception of the head, was concealed by the rupture, and dragged out of its natural position. The contents of the tumor were irreducible. The man was stout and well-built, with a decided inclination to corpulency.

Several intelligent medical gentlemen were called upon the stand, and their testimony tended to show that, while intercourse was possible, it was not, under the circumstances, at all probable. One or two even went so far as to declare that they considered it almost physically impracticable for a man, situated like the defendant, to effect penetration, their opinion being based upon the concealed and crooked condition of the verile member, the large volume and tender state of the tumor, and the prominence of the abdomen, which were regarded by them as so many circumstances calculated to interfere with the consummation of the act. Those who admitted the possibility of the act agreed with the other witnesses that it could have taken place only while the woman was in the most passive condition; or, in other words, that the slightest resistance, on her part, would have been sufficient to enable her to preserve her chastity, had she been so inclined. One of the medical witnesses testified that the size and age of the tumor were such as to weaken the seminal organs, to destroy sexual desire, and to render any successful emissions extremely difficult, if not impracticable. The presiding Judge, the Hon. Mr. Garland, charged the jury in consonance with the declaration of the medical men, and the fact that the child, although full-grown, had been born at the expiration of eight months from the time of the alleged intercourse, and they accordingly found the man "not guilty."

The effect of large scrotal herniæ in relation to impotence has not, I think, sufficiently claimed the attention of medical jurists. Most writers upon the subject give it a mere passing notice, without adducing any satisfactory information in illustration of it. Fodere, in his learned "*Traité de Médicine Légale et d'Hy-*

giène Publique," published in 1796, makes a distinct recognition of the circumstance, declaring that a scrotal rupture of large size might, by its continued pressure upon the spermatic vessels, prevent the secretion of the seminal fluid. In Italy, he states, double hernia, by pressing on the spermatic cords, sometimes causes as complete emasculation as when the testicles are removed with the knife. Many of the fine singers of that country are persons laboring under this disease, having been rendered so by the visitation of God.* METZGER, a writer on medical jurisprudence, informs us that the Medical College of Western Prussia declared the existence of a large and irreducible hernia a sufficient cause of divorce. The late Professor ORFILLA† observes that a scrotal rupture may be so voluminous as almost to efface the penis, and thus render coition impracticable. The same effect, he thinks, may be produced by a very large hydrocele. Our distinguished countryman, Dr. T. R. BECK, the able author of the "Elements of Medical Jurisprudence," the most erudite work on the subject in modern times, admits the possibility of such an occurrence with regard to scrotal hernia, principally, it would seem, upon the authority of FODERE; and extraordinary brevity of the penis, however induced, is generally considered by medico-legal writers and teachers as a disqualifying circumstance.

Three things are indispensably necessary in the male to successful copulation—"*erectio ac intromissio penis, cum emissione seminis.*" In the case of Lyens it is doubtful, from the volume of the tumor, the great brevity and crookedness of the verile member, and various other circumstances, whether he could command the one, or perform the other. As the hernia, however, is single, it is likely that he may have an occasional emission; but whether such a discharge could take place at a particular moment, under the influence of sexual excitement, is extremely problematical. In their attempt to arrive at a correct decision upon the subject, the jury were probably not altogether governed by the condition of the defendant, but, in some degree, by the character of the plaintiff, which was, to say the least, more than suspicious.

Finally, a large scrotal hernia might, juridically speaking, be-

* Op. cit T. 1. p. 373.

† Leçons de Medicine Legale, T. 1. p. 145. Paris, 1828.

come a source of interest in another point of view. A man thus affected might, in a rencountre with another, be struck or kicked upon the tumor, and thus sustain fatal injury, either from the shock of the blow, or from a rupture of the bowel, and consequent extravasion of fœcal matter. In the latter case, he might, it is true, escape with an artificial anus; but the greater probability, by far, would be that he would die from peritoneal inflammation. It would be a nice question, in such a case, for a medical jurist to determine whether the criminal should be punished with the same severity as when life is destroyed where no such complication exists. The sophist would have no difficulty in finding a satisfactory solution.

CASE 2.—*Encephaloid of the Mammary Gland.*

THE patient, Miss H., is a resident of Barren county, Kentucky, and is thirty years of age. She came to me, a few days ago, as a private patient, with a letter of introduction from my friends, Drs. JOURDON & TRABUE, of Glasgow, under whose treatment she had been a short time previously. She is the daughter of a poor farmer, has always been industrious in her habits, and, until attacked with her present disease, was never sick. Upon inquiry, she informs me that one of her grand-mothers was reported to have had cancer of the breast, but that she was cured of it, and lived thirty years afterwards, when she died of another complaint. It would seem that this female, about ten years ago, received an injury upon her right breast, producing slight inflammation, which, however, soon disappeared, but left a small movable nodule about two inches to the left of the nipple. The little tumor gradually but slowly increased, and was occasionally the seat of sharp, lancinating pains. About the middle of June, 1853, it had attained the size of a large walnut. It now began to grow very rapidly, and became the seat of a burning pain, more severe at one time than at another. The skin retained its natural color until the middle of last August, when it began to assume a purplish aspect at the part where the morbid growth was first observed. About two

weeks before her arrival in town, a physician, supposing there might be pus in the tumor, punctured it at two points. Nothing escaped from the lower opening, but the upper discharged a large quantity of fluid which, at first, seemed to be pure blood, but which soon changed to a whitish, flaky, and offensive matter. Within a short time after the swelling was punctured, a fungus commenced protruding at each orifice, and is now, owing to the destruction of the intervening integuments, of enormous size, of a dark purple color, and the seat of frequent and copious hemorrhages. The pain, since the formation of the fungus, has become much mitigated. At present, the tumor measures twenty-two inches in circumference, and twelve inches across its surface. The subcutaneous veins are exceedingly enlarged, much more so than I have witnessed in any other case, and they are seen ramifying over the tumor like blackish lines, the blood in several of them being seemingly completely stagnant. Altogether the appearance of these vessels is most singular and striking. The tumor, which is somewhat hemispherical in shape, is elastic on pressure, evidently lobulated, and pretty firmly adherent to the pectoral muscle. What is remarkable, it is the seat of very little pain. The discharge from the enormous ulcer is very profuse, thin, sanious, and excessively fœtid. There is no enlargement of the glands of the axilla, of the subclavicular region, or of any other part of the chest.

The general health, as you observe, is much deranged; the countenance is pale and sallow, the muscles are flabby and attenuated, the pulse is habitually feeble and above a hundred in the minute, the bowels are constipated, and her strength is rapidly declining. For the last fortnight she has had occasional paroxysms of fever, attended with chilly sensations, but no sweats. Her sleep is much interrupted, and she is obliged to use anodynes at night. Her appetite is feeble. It may be stated that there is occasionally a keen, darting pain in the other breast.

Such, gentlemen, is a faithful outline of the case before us, one, in every respect, of the most melancholy character, from the fate which inevitably awaits it. Surgery, in such a disease, and especially at such a stage of it, is vain and impotent, utterly without hope and without resources. Our hands are literally tied; the

time for an operation, if an operation is ever justifiable in such a disease, is passed; and all that we can do, under the circumstances, resolves itself into mere attempts at palliation. The great and leading indications are, first, to support the woman's strength; secondly, to allay the excessive fœtor of the discharges; and, thirdly, to prevent further hemorrhage, the continuance of which must speedily destroy her. Already the very foundations of life have been sapped by the frequent and abundant losses which she has thus sustained.

To meet the first indication, I shall order her to take, every five hours, or four times daily, at equal intervals, two grains of quinine and the same quantity of sulphate of iron, in solution, along with twenty drops of elixir of vitriol. The exhibition of these articles will, if anything can, under the circumstances, improve the tone of the digestive organs, increase the strength, and impart a certain degree of plasticity to the blood, which, as is apparent from the countenance, is in a highly impoverished condition. The diet should be plain but as nutritious as possible, and should consist, mainly, of animal broths, with the addition of soft-boiled rice, barley, or hominy, the lighter kinds of meats, and stale bread, crackers, or soda biscuit, with weak tea or milk at breakfast and supper. Coffee, hot bread and biscuit, pastry, and the coarser varieties of meats and vegetables should be carefully avoided. Porter, good ale, wine-whey, or milk-punch, should be taken several times a day, in quantities suited to the state of the stomach and heart. There is no probability that any of these articles will injuriously excite the circulation, and I shall, therefore, recommend them to be used quite freely. To induce sleep, and allay pain, anodynes should be given, but not oftener or in larger quantity than is absolutely necessary to attain these objects.

The discharges being excessively fœtid, it is necessary to pay some attention to this circumstance, both on account of the patient, and for the sake of those who are obliged to be around her. You may easily suppose what would be the effect upon a system, already so enervated as this poor patient's, if she were compelled to breathe an atmosphere so greatly contaminated by the effluvia of her own person. Its tendency would inevitably be to produce still further depression of the vital powers by impairing her appetite

and preventing the due æration of the blood. We shall, therefore, direct, not merely some, but special attention to be paid to this subject. The remedy by which we may hope to allay this horribly offensive and sickening odor is the liquid chlorinate of soda, a drachm of which may be mixed with about four ounces of water, which may then be sprinkled, from time to time, upon the dressings, and also upon the body and bedclothes, or a piece of lint, wet with it, may be kept constantly upon the ulcerated surface. The liquid chlorinate of lime may also be used, but I usually prefer the soda. It need hardly be stated that the dressings should be frequently changed, and the parts cleansed with tepid water.

The third indication is not so easily fulfilled; for the fungus will be likely to bleed, more or less, in spite of all that can be done to prevent it. The internal remedies, if faithfully employed, may do something towards this, by increasing the plastic powers of the blood; but I do not think that we need look for much aid from this quarter. My chief reliance will be upon rest and suspension of the affected organ, and upon the application of creosote, alum, and acetate of lead, at the commencement of a threatened attack of hemorrhage. As a preventive, care should be taken to avoid all compression of the tumor by bandages and other means. When the blood spirts out, as it occasionally does, in a full stream, from an enlarged vein or artery, direct compression with the finger will prove the most efficient remedy, and I shall not fail to give the patient some instruction upon this point.

Whether the above measures will be instrumental in promoting the comfort of our patient, and in prolonging her existence, cannot be positively predicted. Everything indicates that she cannot, under any circumstances, survive beyond a few weeks; but it is our duty to do something, and the above course is the best that suggests itself to my mind.

CASE 3.—*Scirrhous of the Mammary Gland.*

Mrs. VIE, aged thirty-two years, a native of Germany, but for the last eight years a resident of this country, and the mother of six children, the youngest being sixteen months old, noticed, about four years ago, immediately on the inner side of the left nipple, a small tumor which has been steadily but tardily increasing ever since, and is now about the volume of a very large orange. It is lobulated on the surface, or, more correctly speaking, it looks as if it were composed of several small masses, free at the top, but fused together at their base, remarkably hard, and but slightly movable. The skin is somewhat rough, of a tawny, reddish color, and pervaded by numerous little vessels, in a state of considerable turgescence. At one point, over a space about half an inch in diameter, it is superficially ulcerated. It was for several years entirely free from uneasiness; but within the last few months, it has been the seat of occasional pain, of a darting, pricking, and burning character, and particularly severe in damp states of the atmosphere. The axillary ganglions are slightly enlarged and exceedingly hard, though quite movable, and a similar nodule exists along the inferior edge of the great pectoral muscle and also just below the clavicle. The nipple retains its normal shape and size, but is somewhat more firm than naturally. Such is a brief but accurate account of the condition of the breast and of the surrounding parts. The general health, you will notice, is but little impaired. Latterly, however, the woman has lost some flesh, and her strength is not as good as formerly, though she is still able to attend to her house-work. She menstruates regularly; her appetite is natural, and she sleeps well enough at night. The bowels are habitually costive, and the spirits are somewhat depressed. So far as I can learn, there is no hereditary predisposition to carcinomatous disease. The eyes and complexion are light, and the stature rather diminutive.

There are several points of interest in this case demanding brief notice. In the first place, our attention is arrested by the patient's age. She is now thirty-two years old, and the malady, as we are informed by the record, was first noticed four years ago. It is

quite unusual to witness scirrhus of the breast at this early period. In the great majority of cases it does not show itself before the age of forty, forty-five, or fifty; that is, about the decline, or soon after the disappearance, of the menses. Indeed, there are some writers who deny that genuine scirrhus is ever seen in this gland under the age of thirty-five, or forty; but this is a mistake, as my own experience testifies. Instances of this disease occasionally occur, though very rarely, in females between the ages of eighteen and twenty-five; and there are several cases on record where it was witnessed before the period of puberty.

Secondly, we may mention, as singular features, the small volume of the tumor, its excessive hardness, and the peculiar tubercular appearance of its surface. Scirrhous formations never acquire any great bulk; but in this instance the growth is uncommonly small, especially when we consider its age. The consistence is also unusual. I do not recollect ever to have felt so hard a mammary gland from any cause. The tumor projects off from the surface of the chest, and its surface has a singularly tuberculated appearance. What adds to this appearance is the want of adipous matter which isolates the indurated and enlarged gland from the circumjacent parts, and thus renders it inordinately prominent.

In the third place, there is a peculiarity in the nipple in this case. In most instances of scirrhous of the mammary gland, this little body is greatly retracted, especially in the advanced stages of the complaint, as well as singularly altered in its form and appearance. In the present case, on the contrary, it retains its normal characters, with the exception, perhaps, of its being a little harder than in the natural state.

Fourthly, it is not common to witness such extraordinary hardness in the lymphatic ganglions of the axilla, on the pectoral muscle, and in the subclavicular region. The sensation which these bodies impart to the finger leads to the conviction that they are deeply involved in the morbid action; or, to express myself more properly, that they are in the same scirrhous condition as the mammary gland itself.

Fifthly, although the disease is of four years standing, there is, as yet, comparatively little derangement of the general health. All the functions, even the menstrual, appear to be well perform-

ed. The malady, however, is gradually progressing, and will, doubtless, ere long, make serious inroads upon the general system.

Having thus explained to you the chief points of interest in this case, let me say a few words respecting its diagnosis. I have repeatedly stated to you, in the course of the preceding remarks, that the disease is scirrhous, or hard cancer, and you will necessarily expect that I should assign some reason for my opinion. Any elaborate comments upon the subject, however, would, after what has been already said, be superfluous. The symptoms are so plainly marked, so distinct and characteristic, that he who runs may read. The slow but steady progress of the tumor, its excessive hardness, which is greater than that of any other substance, except cartilage and bone, its small volume, its circumscribed form, its tuberculated surface, the sharp, pricking pain, and the enlarged and indurated condition of the neighboring lymphatic ganglions, are so many circumstances which stamp the nature of the disease, and enable us, even upon the most superficial examination, to determine the diagnosis with unerring certainty. In short, there is no other tumor, deposit, or formation, of which I have any knowledge, or which occurs in the mammary gland, which at all resembles the one before us.

A month ago, I showed you a case of encephaloid tumor of the mammary gland, and, if you will recall to mind the circumstances attending it, you will be struck with the remarkable contrast between that case and this. In the former, the tumor was of enormous volume, most of which it had attained in a very few months; it was comparatively soft and elastic; there was excessive enlargement of the subcutaneous veins; the centre of the morbid mass was ulcerated, and was the seat of a foul, sanious discharge, together with frequent hemorrhages; the pain was so great as to compel the poor woman to use anodynes to enable her to sleep; the neighboring lymphatic ganglions however, even those of the axilla, were free from disease; the body was greatly emaciated; and the countenance exhibited a peculiar sallow and cachectic appearance, indicative of a contaminated state of the system, and of approaching dissolution. No two cases could possibly be more dissimilar, or exhibit, in a more striking manner, their distinctive peculiarities.

A few words in regard to the treatment of this case, and we shall dismiss it. The patient has applied to me for relief. She has borne up nobly under her burden, but it is becoming more and more painful, and she is, therefore, anxious to have something done. It must be obvious to you from the account of the case, and from the general remarks which I made to you upon carcinomatous affections in the early part of the session, that the case is not a proper one for the knife. Such is the condition of the tumor and of the neighboring parts that the removal of the diseased gland would only tend to hasten the poor woman's death. Nay, it admits of doubt, great doubt, whether a scirrhous formation of the mammary gland should ever be treated in this manner, even under the most favorable circumstances, as it respects the surrounding structures and the general health. My opinion has always been—and this is the doctrine which I have endeavored to instil into the minds of my pupils ever since I began to teach the principles and practice of surgery—that the less we meddle with these cases the better it is for our patients; the less likely, in short, will they be to have their sufferings aggravated and their lives prematurely destroyed. For a number of years past I have declined operative interference nearly altogether, even in the earliest stages of the disease, and in the report which I had the honor recently to prepare for the American Medical Association, "On the Results of Surgical Operations in Malignant Diseases," I have endeavored to place this subject in its true light before the profession. The facts developed in that document are of a most startling character, and cannot fail, I think, to satisfy the most sceptical in regard to the propriety of the rules there laid down for our government in the treatment of malignant affections. I trust that the reading of that paper, if you should so far honor it, and my oral teaching in this institution, will have a tendency, on the one hand, to inspire you with a love for conservative surgery, and, on the other, to repress any itching that you may have for the indiscriminate use of the knife.

But to return from this degression. Since the knife is inadmissible in this case, we must content ourselves with palliatives; that is, means calculated, as in the case of Miss H., to improve

the general health, and to allay pain. With this view we shall order the patient to take occasionally a few blue pills, to regulate the bowels and secretions; to live upon light and simple food; and to use, three times a day, at equal intervals, two grains of citrate of iron and sulphate of quinine, with a little morphia, laudanum, or Dover's powder at night. As to arsenic and cicuta, two articles which have acquired some celebrity in the treatment of carcinomatous diseases, I have, after repeated trials, found them utterly worthless, and now never employ them. The dress should be worn very loose, so as not to compress the tumor, which should be kept constantly covered with a layer of glazed cotton; a substance that will afford sufficient warmth, and at the same time maintain the cutaneous perspiration.

Art. II.—CASES AND OBSERVATIONS IN SURGERY AT THE PARIS HOSPITALS.

BY E. WILLIAMS, M. D., IN A LETTER TO PROFESSOR GROSS.

Case 1.—*Burn of the Eyes by Lime.*

On the 27th of August, I saw a man at the eye clinic of M. Désmarres, who, two days previously, had fallen with his face in a vessel of slaked lime. He stated that he immediately felt an intense burning pain in both eyes and ceased entirely to see. M. Désmarres removed from the palpebral sinuses a considerable quantity of lime mixed with coagulated blood. The corneæ, seemingly only superficially cauterized, were still partially transparent, so that the pupil and iris were visible through them—the right being more seriously involved than the left. The surround-

ing conjunctiva and schlerotica were of a dirty, yellowish white color, and completely insensible to the contact of the finger or an instrument. The patient was free from fever; there was no photophobia,—in short, he did not suffer the slightest pain, but could not see to walk. This condition of freedom from suffering and inflammatory action lasted for *two weeks.* On the 14th day, the right eye, which was most deeply burned, was still unchanged; but the left was red and painful, with considerable chemosis, and there was a semilunar ulceration of the cornea near its border, occupying about one-fourth of its circumference. By means, however, of the most energetic antiphlogistic measures, with repeated scarifications of the vessels of the globe around the cornea, this eye was saved, and the patient now sees sufficiently to transact business. But with the right organ the result was very different. On the 15th or 16th day, intense inflammation was developed. The surface of the cornea and the whole extent of the conjunctiva, deprived of vitality by the lime, was sloughed; and, in a very few days, firm adhesions occurred between the lids and the globe of the eye, in spite of every effort which was made to prevent it. From day to day the cicatricial tissue, which took the place of the conjunctiva, continued to contract from behind forwards, till it had produced the most complete symblepharon. The cornea, transformed into a cicatrix, contracted from the circumference towards the centre, and presented itself as a small, hard, fungous excrescence, which protruded between the edges of the lids at the central part. I saw this patient yesterday, and found him in the same condition, excepting that the opacity of the left cornea is gradually disappearing, and he sees better with it than he did some weeks ago.

At the first sight of this unfortunate patient, M. Désmarres made a very unfavorable prognosis—stating that the right eye would be irretrievably lost, but the other might possibly be saved —that although no violent symptoms were then present, the *absence* of *sensibility* in the right cornea and conjunctiva was sufficient evidence that they would be, sooner or later, eliminated in the form of an eschar and followed by symblepharon. His experience had proved to him that the commencement of the eliminating process in burns of the eye, does not occur before the fifteenth or

twentieth day after the accident, and that it was hazardous to base a favorable prognosis, at an *early period*, upon the apparently *slight character* of the burn. In indicating the great reserve which should characterize the conduct of the surgeon in this respect, he related the history of a young woman whom he treated some three years ago, for a similar accident produced by sulphuric acid, that her jealous husband, in a fit of passion, had dashed in her face. Both corneæ, when he first saw her, were still almost perfectly transparent, but their surfaces, with that of the surrounding conjunctivæ, were completely *deprived of tactile sensibility*. The woman had no pain or fever, and continued to see moderately well. *Twelve days* passed before severe inflammation was developed. Extensive sloughing of the cornea and schlerotica then occurred in the left eye, the crystalline lens escaped, and, in less than one month from that time, the ocular and palpebral surfaces of the conjunctiva were solidly agglutinated together. Subsequent but unsuccessful attempts were made to separate them and insert an artificial eye, and the patient remains with an incurable deformity. Fortunately the left eye, less profoundly cauterized by the acid, was saved, after running the most imminent danger. There is now in the Hospital of the Faculty a young man who, seven years ago, received some quick lime in the eye. It was immediately washed out with a stream of cold water, and a constant application of the same fluid, kept up for several days, prevented him from suffering a great deal; but at the end of three weeks, there was symblepharon, with union also of the free edges of the lids with each other. He came into the hospital some weeks ago, requesting an operation to remedy the deformity. From the prominence of the organ it was evident that there was a staphyloma behind the agglutinated lids. On the 7th of December, M. Nelaton separated, with a bistoury, the edges of the lids, dissected them loose from the balls, and then excised a portion of the staphyloma, hoping to prevent a re-union, and enable the patient to wear an artificial eye. High inflammation followed the operation, and the adhesion was again re-produced, excepting the free edges of the lids, which still remain separated. He now proposes to detach them again and immediately insert an artificial eye, and retain it constantly there so as, if possible, to prevent the

reunion. But the use of this means, or of any other foreign body inserted between the lids and ball, often creates excessive inflammation; or, even if it is tolerated by the patient, the union gradually occurring at the bottom of the conjunctival cul de sac, pushes the foreign body forward with the irresistable force of cicatricial contraction, and expels it from the cavity, and agglutination is inevitable. Again, should the surgeon succeed in maintaining this substance between the cicatrizing surface for many months, and then remove it, the cavity will then be almost surely obliterated. Mr. N. remarked that in a case of a similar kind, he once operated, and made the patient wear a thin plate of metal for six months, then removed it, and, in a short time, the adherence was reproduced. Every one who knows the incontrollable force with which a cicatrix contracts, can readily conceive the almost entire uselessness of all means usually adopted to prevent adhesions when the whole extent of the conjunctival surfaces has been involved. When, however, the bottom of the cul de sac has remained intact—when the union is limited to the anterior part—then the chance of success by the use of the metallic plate or enamel eye interposed, is much greater. I remember having seen M. VELPEAU operate upon a case of symblepharon last summer, in which he passed a needle with a strong thread through the middle of each lid, and attached them, the one over the forehead, and the other beneath the chin, so as to separate them from all contact with the globe. This was kept up for several weeks, but finally the surfaces were fatally soldered together as before. You remember, doubtless, the little boy from Indiana, with the same deformity produced by the explosion of gun powder, upon whom you operated in my presence in the spring of 1852, and in whom the difficulty was again reproduced.

Two other procedures have been suggested and practiced in this almost irremediable deformity. The one dissects up the adhesions, inverts the lids, and maintains them thus with the cuticle in contact with the globe, till cicatrization is completed. The other divides the lids perpendicularly at their middle points, detaches the flaps from the globe beyond the ordinary limits of the conjunctiva, everts them completely, and keeps them thus during the cicatrizing process. This latter method is the only one which can

be resorted to with much prospect of success, when the entire extent of the conjunctiva is adherent. After the cicatrization, the divided edges of each lid can be pared and readily united with needles and sutures.

In consequence perhaps of the rarity of burns of the eye, but little is said of them in treatises upon surgery, and hence the above observations may not be without interest to the general practitioner. During the past six months, I have followed assiduously the eye clinic of Désmarres, where are present, every other day, from fifty to one hundred and fifty patients, and the first case related is the only one of burn of the eye that I have seen. I have observed enough of this accident, however, to induce me in the future to use great reserve in the prognosis of such cases, however slight.

Case 2.—*Strangulated Femoral Hernia—Operation—Death by Cholera.*

On the 6th of December, a woman came into the hospital, stating that she was suffering from strangulated hernia. The rupture had existed for ten years, and she had worn a truss which did not keep it perfectly reduced. It caused no suffering or special inconvenience, however, till the 4th of December, when she was taken, without any appreciable cause, with vomiting, and soon after observed that the tumor in the groin was larger than usual, and somewhat painful to the touch. A physician was called, who, by long continued taxis, succeeded only in very slightly diminishing the size of the swelling without reducing it. On the following morning the vomiting still continued, and there had been no discharge from the bowels. Renewed efforts at taxis were made, but with no better success than the first. On Tuesday, at 12 o'clock, she entered the hospital, and, at 7 P. M., I examined her in company with the chief Intern of the hospital. The vomiting had then entirely ceased—her countenance tranquil, skin natural, pulse slow and soft—in short, she did not seem to be suffering at all. There had been, however, no discharge from the bowels since

the previous Saturday. In the left groin was a tumor of the size of a small hen's egg, ovoidal in shape with the long diameter in the direction of Poupart's ligament, and which she said had not changed in size for three days. It seemed to mount up in front of the ligament, but, when carefully examined, a pedicle was felt extending from it beneath the ligament, and restraining thus the freedom of its movements. To the feel it was very hard, giving exactly the sensation of a hypertrophied lymphatic gland; it was entirely dull upon percussion, and but very slightly painful to the touch. It seemed impossible that a patient free from all suffering or fever, and with a countenance perfectly calm, should be laboring under strangulated hernia—an affection which transforms every feature into an index of intense suffering and anxiety. A purgative injection was ordered, which brought away some fœcal matter.

Wednesday morning, 8 o'clock, same tranquil state continues—pulse natural—no vomiting. Prof. Nelaton prescribed a dose of castor oil, which was very soon vomited. In the afternoon, restlessness, vomiting and hiccups appeared, and some unsuccessful attempts at reduction were made.

Thursday morning, 8 o'clock, same symptoms continued and she felt some uneasiness in the region of the tumor, but firm pressure did not cause much pain. The previous existence of a hernia, the pedicle extending from the tumor into the abdomen, and the obstinate constipation, with vomiting, left little room for doubt about the nature of the difficulty. The injection had caused the discharge of some fœcal matter from the bowels; but it, doubtless, did not come from above the constriction. Nothing given by the mouth had traversed the whole canal. The taxis proving unsuccessful, Prof. N. resolved upon an operation. On cutting through the skin and superficial fascia, he came upon a fatty mass much resembling epiploon, but he incised it freely and at length perceived the bluish, semi-transparent sac. When it was opened a small jet of bloody serum issued, and the little knuckle of intestine, purple from the strangulation, presented itself. After incising freely the sac, he seized, with the fingers, the sides of the canal through which the intestine had protruded, and, making rather strong traction, notched in three places, with a

probe-pointed bistoury, the superior constricted part. The intestine was then reduced without any difficulty, the vomiting ceased, and soon afterwards she had several free evacuations from the bowels. The wound was not closed by sutures, but simply dressed with charpie and a bandage. For the following forty-eight hours the case progressed very favorably, when all at once she wrs attacked with cholera. Cyanosis soon appeared, the voice was extinct, pulse gone, skin cold and shriveled, without the least tympanitis, pain upon pressure or other symptom of peritonitis. She died on the 13th, four days after the operation. At the post mortem, no trace of peritonitis were discovered; the knuckle of intestine that had been imprisoned was still purplish but not gangrenous. At the abdominal opening of the crural canal and extending slightly into the cavity of the abdomen, were three slight incisions involving only the peritoneum and cillular tissue beneath it.

There are several points worthy of special remark in the history of this case.

First—The complete subsidence of the restlessness and vomiting after they had existed for 24 hours, and that too without the reduction of the hernia—the length of time (nearly 48 hours) that this state of calmness and freedom from pain and vomiting lasted—and finally the reappearance of the grave symptoms and the consequent necessity of an operation.

Second—The remarkable hardness of the tumor, and its resemblance to an enlarged lymphatic gland—the complete dulness upon percussion although it contained a portion of intestine filled with gas, and its almost entire freedom from pain whether spontaneous or from pressure.

Third—The seat of the strangulation, that is the peritoneum simply at the superior orifice of the femeral canal. There was not the slightest constriction either at gimbernats ligament, the falciform process of the fascialata (Hay's ligament) or the opening where the hernia traversed the fascia cribriformis, the three points that are always accused as being the seat of the strangulation. In regard to this woman, Prof. Nélaton remarked that he had seen a similar case not long since, where the tumor was entirely free from pain. There were vomiting, obstinate constipation, cramp, great depression, and that peculiar anxious and contracted state of the

features so characteristic of strangulation. The tumor was irreductible, yet all these symptoms, except of course the *constipation*, subsided, and for some 36 hours the patient was perfectly tranquil as in the case above cited. They at length returned with extreme violence, and he was compelled to operate and found a portion of intestine severely strangulated. The posibility of the disappearance of the urgent symptoms for a length of time, notwithstanding the persistence of the strangulation, and the entire freedom from pain in the region of the tumor, is a fact which should be faithfully borne in mind. PROF. NÉLATON'S method of operating for strangulated hernia is exceedingly simple. He cuts without hesitation through all the tissues till he sees the bluish sac, rendered so by the sanguinolent serum and purplish color of the intestine which are seen through it; he then divides the sac carefully, and taking hold of it on each side makes sufficient traction to bring into view the strictured part, (which he says exists in the great majority of cases at some one of the little perforations in the cribriform fascia through which the hernia has protruded) and then notches it at several points so as to enable him to reduce the contents. There is certainly no danger in cutting freely through the skin and other tissues, whether fascia or adipose substance, till the purplish transparent sac is brought into view. The bluish color of the sac renders it unmistakable if its contents are *intestinal*, and if they are omentum, no great inconvenience arises if they are cut. Many young surgeons I am confident, allow patients to die without an operation, or else, defer it so long that there is no hope of success, from timidity originating out of the *classic idea* of the great difficulty and danger of the operation. As a general rule at least, it is certainly one of the simplest in all surgery.

The accumulation of fat in the subperitoneal cellular tissue present in this case, and giving rise to the *hardness* of the tumor and its complete dulness upon percussion, is often a great source of embarassment to the inexperienced operator. But with the idea present in his mind that this deposit, often quite thick, of adipose substance frequently exists and must necessarily be cut through before the sac is reached, he proceeds coolly but of course *prudently* in his operation. It is by thus thickening the walls of the tumor by the *deposit of fat* that nature sometimes obliterates the

sac and effects a spontaneous cure. Or, the neck merely of the sac being obliterated after the reduction of the contents, there remains a small isolated serous cavity which may subsequently become the seat of a serous accumulation in the form of a cyst. I saw, a few days ago, in the wards of Prof. Velpeau, a case of this kind. The woman had a hernia which had disapeared spontaneously, but, some months afterwards, a tumor began to be developed in the same point which increased slowly till it had acquired the volume of a hen's egg. He made a free incision into it, gave issue to the fluid it contained and filled the cavity with charpie so that it healed by granulation from the bottom. Cysts supposed to be developed in the lymphatic glands of the groin, have doubtless sometimes their origin in this source.

While on the subject of hernia, I must tell you of a couple of novel operations recently performed by M. Maisonneuve, who stands at the head of *progressive surgery* in Paris, and *progress* you know in *surgery* and *politics* is rarely effected without the *loss of blood.* The one was a patient upon whom he had operated for strangulated hernia, and in whom the symptoms of strangulation still continued. The other, a case in which the hernia had been reduced by the taxis but all the urgent symptoms still persisted. In both he opened the abdomen in the right lumbar region, searched a portion of the small intestine *above* the seat of the stricture which he determined by its distension; then found the caecum, made an incision into each and united them by sutures so as to establish a route for the alimentary matters. Both patients were almost in *articulo mortis* when this proceedure was adopted, and of course *died.* Such an operation in such desperate circumstances, if not *adviseable*, is at least *excuseable*, particularly in Paris. I should like to give you a summary of the many operations of an *analagous nature*, that I have seen performed by this *original and enthusiastic* surgeon, but my space will not allow it. He has a perfect mania for hazardous and unheard of operations. Aside from this, there are many traits in his character that I admire very much, and many of his novel proceedures are exceedingly ingenious; besides, he operates most beautifully.

Case 3.—*Ascites taken for a Cyst of the Ovary—Injection of Iodine—Death.*

Early in November, there entered the hospital a woman aged 31 years with an enormous distension of the abdomen. She stated that fifteen months previously, shortly after a natural accouchment, she perceived that her abdomen was enlarging, and, supposing herself pregnant, consulted her physician who told her it was a tumor. The enlargement increased very rapidly, and on the 12th October last, she was tapped in consequence of the extreme difficulty of breathing, and over *six gallons* of a clear citron colored liquid withdrawn. The swelling, however, commenced immediately, and in less than three weeks the abdomen was as large as before the puncture. On the 14th November, M. Nélaton examined the patient and pronounced the tumor to be a *cyst of the ovary.* In his clinic he stated that the ancients possessed no physical means of diagnosing *ascites* from a cyst of the ovary when it had acquired a *great size and filled the entire abdominal cavity;* but that now the *sign* of Rostan renders it comparatively easy. In ascites the patient lies upon the back and the intestines distended with gas, float upon the liquid, and hence there is dulness upon percussion in the right and left lumbar regions with sonoriety in the umbilical. On the contrary, a cyst of the ovary mounts up in front of the intestines, pushes them to each side and gives rise to dulness in the *umlilical and sonoriety* in the *lumbar regions*, which was the case in the patient under consideration. There was one source of error, however, which, though extremely rare, might give rise to wrong diagnosis. If the intestines were perfectly free from gas they would not float upon the liquid; or again, the existence of *ancient adhesions* might bind them down and prevent them from rising to the surface. The rapidity with which the fluid accumulated, rendering tapping necessary every two or three weeks, demanded summary treatment, otherwise, the patient would die from exhaustion in a very few months. In this view of the subject, and encouraged by the reports of a number of cases of ovarian cysts cured by injections of the tincture of iodine, he resolved upon this treatment, but not without serious misgivings as to the conse-

quences of injecting an irritating fluid into such a vast cavity. But the woman was still young, of a moderately good constitution, and the liquid previously withdrawn, was limpid, indicating a favorable surface for adhesive inflammation; besides, according to him, there was no evidence of serious organic lesion in any of the viscera. But, contrary to Prof. N's well known character for minute and careful examinations, he omitted the *heart* entirely. On the day previous to the operation, I examined, with the chief intern M. Dolbeau, the chest of the woman and found the heart's actions very irregular and tumultuous, extensive dulness upon percussion in the precordial region, and a strong bellows murmur with the first sound. Besides this, there was slight edema of the inferior extremities.

On the 18th November, he punctured the abdomen, drew off an enormous quantity of clear serum and then injected about a quart of the following solution: Tinct. of iodine, one part; dist. water, two parts; iod. of potash, q. s.; to prevent the precipitation of the iodine. The injection remained about five minutes, and then was allowed to issue by the canula. It escaped, however, with difficulty and at least half was necessarily left in the abdomen. The woman immediately became faint, the lips pale, pulse feeble and frequent with much general anxiety; but she did not complain of the abdomen. During the following forty-eight hours she vomited frequently, had great thirst, cold skin, and a very rapid feeble pulse. Still there was no acute abdominal tenderness or other symptoms of intense peritonitis. After two days the pulse became fuller, the vomiting ceased, the lips redder, and expression of countenance much better.

Nov. 22—patient appears much better—no abdominal tenderness—no vomiting; but the fluid is very rapidly re-accumulating and there is now perhaps near two gallons in the abdomen. Desiring something to eat, a little soup with a small piece of chicken was allowed her. She seemed quite well till two o'clock the following morning, when she suddenly called for the nurse, complained of a severe pain in the head and died in a very few seconds.

Post mortem. On opening the abdomen, an old and very *consistent false membrane* was found binding the small intestines firmly against the vertebral column. The collection of liquid was in the

peritoneal cavity in *front* of the intestines, and hence the dulness in the umbilical and sonoriety in the lumbar regions. The ovaries were a little enlarged, and in one of them were several small cysts of the size of an ordinary pea.

Upon the surface of the peritoneum were some shreds of recent false membrane, the result of the slight peritonitis produced by the injection. The liver was cirrhosed. The pericardium was obliterated by adhesions, and there was enormous hypertrophy of the heart, with great narrowing and thickening of the mitral valve; a large clot existed in the right ventricle and the left auricle was greatly dilated, sufficiently in fact, to contain an adult fist.

The death in this case, nearly five days after the operation, and when all the symptoms of peritonitis had subsided, can not, I think, be attributed to the injection. The grave organic lesion of the heart, is sufficient explanation of the sudden termination of life in the midst of apparent improvement. But the error of diagnosis led to a treatment which *might have been* immediately fatal, and which this eminent surgeon would by no means have employed, if he had suspected an ascites produced by an organic disease of the heart. He was led into the mistake by his great confidence in the physical sign of Rostan, as afforded by percussion, although aware of the possibility of certain physical conditions that may give rise to the same phenomena even in ascites.

Several cases have recently been published in the French journals, of cysts of the ovary cured by repeated injections of iodine, but it is by no means certain that many of them were not ascites produced by chronic peritonitis, or other affections much more amenable to this treatment than ovarian dropsy. Still, as there are several well authenticated cases of cure upon record, it must be acknowledged to be a valuable resource in this almost irremediable affection. In 1840, PROF. DIEULAFOY, of Toulouse, struck with the good results and comparative innocuity of injections of iodine into chronic abscesses, hydrocele, external cysts of various kinds, and even into the joints as practised by VELPEAU, conceived and executed the idea of throwing the same substance into the peritoneum in cases of chronic peritonitis followed by intractable dropsy. His first patient, reduced by repeated tappings to the very brink of the grave, was completely cured after three injec-

tions at intervals of from two to four weeks; most probably by the complete obliteration of the peritoneal cavity by adhesive inflammation. This remarkable cure brought the treatment into vogue, and it has since been greatly popularized by VELPEAU and other distinguished surgeons. One thing is certain, that the contact of this substance with the peritoneum, thickened and altered as it is in chronic peritonitis and other affections does not often produce grave accidents. But inject the same substance into a healthy peritoneum and death is almost certain. A few months since I saw MR. MAISONNEUVE tap an ovarian cyst, and afterwards inject a large quantity of solution of the tincture of iodine, most of which could not be made to run out again. The woman was instantly seized with excruciating pains in the abdomen, sinking of the pulse, coldness of the surface and extremities, excessive anxiety of the countenance, and in *less than three hours she was dead.* On examination it was found that the canula had become deranged, and allowed the injection to enter the *peritoneal cavity.*

The array of experiments upon *dogs* in opposition to injections of iodine for ascites is of little weight; because, aside from the *difference of species*, there is a very wide difference also, between the healthy peritoneum of a dog and this membrane as it is thickened and altered by disease in the human subject. They are about as irrelavent to the question, as are the experiments of MALGAIGNE upon *rabbits* in order to determine the influence of the extended, or semiflexed position of the limb in the treatment of fractures! Between the size and direction of the muscles with respect to the bones, the shape of the joints, arrangement of the ligaments, &c., in the rabbit, and in the "lord of creation" there is as great a difference as there is between the *moral attribute* of these two animals. These questions can only be solved by trials upon the human subject, and thus far experience sanctions injection of iodine, under certain circumstances, into the peritoneal cavity, ovarian cysts, the pleura and even the joints. During the past summer I saw it thrown into the pleura by Valleix, with very decided benefit in a case of hydrothorax from chronic pleurisy, and several times have I seen VELPEAU inject the cavity of the knee joint with the same good results. He says he has injected the knee joint in thirty cases, and the phenomena which follow are precisely similar to

those that are observed after the injection of a hydrocele,—slight pain, redness and swelling which subside entirely in three or four days. He alledges that this fluid injected into the joints, is not dangerous—that it cures a certain number of cases, especially when uncomplicated—that it assists other remedies in curing others—and that he has never seen it followed either by suppuration or anchylosis. Of course he only resorts to it in case of failure from ordinary and more simple treatment. The same procedure has also lately been proposed as a means of *dissolving* foreign bodies which form in the articulations. This substance, however, when thrown in considerable quantities into large cavities is liable to be absorbed and produce severe poisonous effects, especially, when it does not issue freely through the canula, which is often the case. On the 20th of June, I was present and saw Prof. Nélaton inject a very large chronic abscess at the anterior part of the thigh, caused by caries of the spine. He threw up a pint and a half of fluid, at 10½ o'clock, and only about half of it could be got out. Three hours afterwards, the boy began to feel giddiness and dimness of vision, followed soon by vomiting and extreme "malaise." The skin was moist, extremities cold, pulse small and thread-like, respiration accelerated, great prostration of strength. This formidable array of symptoms lasted all night, and on the following morning, in addition, there were *cough*, *sore throat*, *extinction of the voice*, inarticulate moanings, and enormous swelling, with lividity of the upper eye lids. On the 22d, he seemed stronger, but still complained greatly of a pain in his throat which was dry but not otherwise altered from health. But the respiration, especially *inspiration*, was very laborious with hoarseness and a croupy cough. He was evidently in danger of suffocation from oedema of the glottis, and Prof. N. was on the point of resorting to tracheotomy, when under the influence of purgation, ice internally, sinapisms to extremities and blisters on each side of the larynx, he was relieved and in a few days all the symptoms disappeared.

I have several other cases upon my note book, of which I intended to have spoken, and especially of the operation of *urethotomy*, as recently proposed by M. Rébard in a very remarkable monograph upon strictures of the urethra. By means of an instrument of his own invention, he makes a very deep incision through the

stricture from within outwards, so as to be able at once to insert the largest sized bougie of Bénéqué's scale. I have seen the operation performed several times with a modification of his instrument, a sort of lithotome caché,—but must defer giving you the results of my observations till some future occasion, as my letter is already much too long.

Review.

Art. III—ELEMENTS OF HUMAN ANATOMY: GENERAL, DESCRIPTIVE AND PRACTICAL.

By T. G. Richardson, M. D., *Demonstrator of Anatomy in the Medical Department of the University of Louisville, and one of the attending Surgeons at the Louisville Marine Hospital;* 8vo pp. xx. 734. Philadelphia: Lippincott, Grambo, & Co.

"What a piece of work is a man! How noble in reason! how infinite in faculty! in form and moving how express and admirable! in action how like an angel! in apprehension how like a God! the beauty of the world! the paragon of animals."

We deem it but an act of justice to the author of the present work that a more extended notice of it should be given than the one which appeared in the January number of this Journal. Owing to the late period at which the work was received a mere bibliographical notice was all that could, under the circumstances, be attempted. We resume our task so much the more willingly for

two reasons; first, because the production is one strictly Western in its origin, and secondly, because it is the offspring of a young man born and reared in our midst, and educated exclusively in a Western University, without the *prestige* of Eastern study or foreign travel. In making these remarks, it is not intended in the most remote degree to draw any distinction between Western and Eastern Authors, or to institute any comparison between Western and Eastern Medicine, theoretically or practically considered. Whatever is good, valuable, or reliable, is worthy of our confidence and regard from whatever source it may emanate. The West belongs equally to the United States as the East, the North and the South; they are all parts, God be thanked, of one integral whole, and hence whatever they may contribute, whether in literature, the arts, or the sciences, should be considered as offsprings, not of a sectional, but of a national character. Whenever medical men become politicians, and exert their talents and their influence for sectional purposes and not for the general weal, they disgrace their profession, and prove recreant to its best and dearest interests. Many a good work has been condemned both in this country and in Europe, simply because it did not happen to have had the good fortune to be *born*, although it might have been *ushered* into existence, in a particular city. "Can there any good thing come out of Nazareth." The hand of Christian, Jew and Gentile is at once raised against it. Our motto, like that of our great and immortal Statesman, should be, "The union first, the union last, the union one and indivisible."

Many who read this article will doubtless be disposed to ask, what necessity is there for another work on human anatomy? Are our libraries not already full, even to repletion, with treatises of this description? Are we not in possession of the elaborate systems of Portal, Bichat, Boyer, Meckel, Cloquet, Hildenbrandt, Cruveilhier and Quain, to say nothing of the less pretending volumes of Blandin, Monro, Harrison, Maygrier, Lauth, Wilson, Ellis, Ledwich, and of our own countrymen, Wistar, Horner, and Morton? In a word, what need is there of another text-book, since our pupils have already a much greater number of such works than they can profitably read? We do not deny the right of any one to institute such inquiries; for in this enlightened age

and in this republican country people do very much as they please, and it is, therefore, very natural, as well, indeed, as very proper, that they should think and judge for themselves upon all matters pertaining to, or affecting, their interests. But we would respectfully ask, by way of offset against such inquiries, whether the above list, which hardly embraces a tithe of the works on the subject, does not refer, in great measure, to foreign works; works which, on account of the language in which they are written, are either inaccessible to the American student, or which, if attainable, are so in consequence of translations and reprints? Our own country, strange as it may seem, has furnished but few treatises on this branch of medical science, and with these the present performance will, to say the least, bear a most fovorable comparison. We have labored long enough, God knows, under the yoke of Great Britain; the want of an international copy-right law, and the indiscriminate re-publication of foreign works, in all the departments of medicine, have well nigh destroyed our national individuality. While the English language, from its universal diffusion in this country has been an inestimable blessing to the people, by furnishing them from abroad the amplest supply of intellectual nutriment, at a rate so cheap as to bring it within the reach of all, even the most poor and humble, it must be perfectly evident, to every reflecting mind, that the circumstance that all our works are written in this language has been, and will continue to be for a long time to come, a great impediment to the establishment of a national medical literature. In this respect it is a great misfortune that we have no language of our own, even though it were no better than the Chickasaw, Choctaw, or Hottentot; foreign works then could reach us only in the form of translations, and many an English book which now rejoices in a reprint in the hands of an avaricious bibliopolist would fall still-born from the press. The fact no longer admits of doubt that many of the current English works of the present day are much more widely circulated in this country than in Great Britain. Take for example, Mr. Ferguson's Practical Surgery, which has passed through at least one edition more in the United States than in England, and which has probably four readers in this country for one at home. The same is true of many other publications. With such books

American works cannot possibly compete. There being no international copyright law, the foreign works can be furnished at nearly half the cost of the native; and, when we add to this circumstance the venal puffs with which these reprints are usually ushered before the American profession, it is not difficult to perceive which work, all other things being equal, will gain the victory.

A second reason why we have no national medical literature, is the fact that many of the English reprints are ushered before our profession under the sanction of the names of American physicians. Formerly there was some excuse for this. In the infancy of our country there were few physicians on this side of the Atlantic competent to compose works; their opportunities for observation were comparatively limited, and few had time or inclination, amid the care and annoyances attendant upon the formation of our medical and charitable institutions, to devote themselves to authorship. But the times have changed. These obstacles have been removed, and the world can no longer accuse us either of ignorance or idleness. Indifferent we may be, but not if we are imbued with a true spirit of patriotism and a genuine love and regard for our profession. It used to be, and probably still is, an easy matter for Eastern publishers to hire men to become sponsors for foreign works, and to lend them, for the paltry sum of fifty or a hundred dollars, their names and their influence. Thus endorsed, they often acquire, like spurious coin, an extensive circulation, far greater, in fact, than they obtained at home, or than their intrinsic merits justified.

Another evil which greatly operates to our disadvantage, and the extent of which can be fully apreciated only by those who are thoroughly acquainted with its nature, is the venal character of a portion of our medical press. Every publisher in the country knows that he has only to send a copy of his reprint to the editors of our medical journals, to obtain from these *guardians* of the profession a flaming puff, or a fulsome notice of the English, Scotch, or Irish emigrant. For the sake of increasing their libraries, at a cost *apparently* so cheap, few of these gentlemen hesitate to sacrifice their personal independence and the true interests of our domestic medical literature. The effect of such a course is to give

undue weight and importance to foreign works, and to induce the belief, both in and out of the profession, that we are incompetent to supply our own wants by our own resources. That there are noble exceptions to this statement is unquestionable, but they are mere exceptions, not the rule. They are like angels visits, few and far between. We do not deny to foreign works the right to be heard; they should be heard, and be heard deliberately in the spirit of true and candid criticism; their claims to public confidence should be freely canvassed and honestly presented; all that we protest against is the indiscriminate and wholesale system of puffing, so characteristic of the medical press of this country. Editors guilty of the conduct here alluded to, deserve to be branded as the Arnolds of our profession; for they would not scruple to betray our best interests, and barter away our birth-right for a few shekels of silver.

Fourth, and lastly, for we have not time to dwell upon this topic, the establishment of a national medical literature and the success of American authors, is greatly impeded by the fact, that many, if not most, of our medical schools recommend to their pupils foreign works as text-books. That this is the case the annual announcements of our institutions abundantly attest. To refer merely to what exists at home, we find that in the University of Louisville the following foreign works are embraced in the list of those recommended as text-books to the different courses of lectures: Wilson's and Quain's Anatomy, Carpenter's and Kirke's Physiology, Liston's Surgery, Chaillie's Midwifery, Ashwell on the Diseases of Females Pereira's Materia Medica, Watson's and Stokes' Practice. Of the works of Horner, Morton, Dunglison, Oliver, Ebrle, Beck, Gibson, and many other excellent American authors, no mention is made in connection with the subject. But this practice is not peculiar to Louisville; it obtains, to a greater or less extent, in every school of this country. The circumstances which induce this state of things could, if time permitted, be very easily traced to their real causes, the disclosure of which would not, it is believed, reflect the greatest credit upon our medical schools.

We have incidentally glanced at a few of the principal causes which, in our judgment, are vitally concerned in retarding and

obstructing the development of our national medical literature and the success of our native medical writers. It cannot be denied that a good book will always find readers and patrons, but it is equally certain that its merits are often overlooked in this great sea of foreign reprints. Not the least misfortune arising out of this state of things is, that men, in every respect competent to write, are afraid to become authors, well knowing that a copyright work will stand a poor chance by the side of one on the same subject unencumbered in this manner. At some future time we intend to revert to this subject, and discuss it at some length. For the present, we will only add that it is one of grave importance, demanding the serious consideration of every well disposed American physician.

We have stated that our country has produced but few works on anatomy. The first treatise of the kind ever published in the United States, was the "System of Anatomy" by Dr. Caspar Wistar, in 1814. Considering the opportunities and the high position of the author, the work was one of a very meagre character, altogether in arrear of the existing state of the science in Europe, which had furnished, years previously, the great and immortal treatises of Portal, Sabatier, Bichat, Boyer, Mayer, Sommering, and other writers. It was, in fact, for the most part, nothing but a gross compilation from the monographs of Jones, Monro, Bell, and other English anatomists. The first volume, as the author himself acknowledged in his preface, consisted almost *verbatim et literatim* of this kind of material, requiring hardly the use even of the scissors, much less of the pen. The second volume, treating of the viscera, bore at least the impress of originality, but the descriptions, although in the main sufficiently accurate, were exceedingly imperfect, and, compared with those of the writers above named, eminently tame and *formulated*. When his work appeared, Dr. Wistar had been for many years a Professor in the University of Pennsylvania, an institution which could then already boast of an existence of nearly half a century. When we reflect upon these facts—the numerous valuable works that had been published in Europe, and the position of Dr. Wistar as the most distinguished anatomical teacher of his age in this country, we cannot concede to him any of the qualities which should

characterize an author. His work evinces neither judgment, industry, erudition, nor even good taste. In the latter, especially, he showed himself to be perfectly wanting. Had he possessed good taste and even a moderate amount of industry he would never have borrowed, as he did, one half of his "system" from British writers, and thus afforded occasion for the scoffs and sneers of foreign reviewers. Dr. Wistar enjoyed a most enviable reputation as a teacher on anatomy, and it cannot be doubted that, had he possessed a proper share of industry, he might have produced a great national work. His language is always well chosen, his style concise yet clear, and his descriptions generally accurate. But we have no desire to be capricious and ill-natured; Dr. Wistar was an excellent anatomist, if not a great author, and, with all the imperfections of his work, we should be grateful to him for having produced it. It was the first effort to *naturalize* anatomical science in the United States; and, regarding it in this point of view, it behooves us to make due allowance for its many sins of omission and commission. With the many valuable additions that have been made to it, since the death of the lamented author in 1818, by Dr. Horner and Dr. Pancoast, who have been successively its editors, the "System of Anatomy" by Caspar Wistar is destined to retain, for many years to come, a place in the affection and regard of every American student.

The next work on anatomy was from the pen of Dr. Horner, for several years the assistant of Dr. Wistar and Dr. Physick and for nearly a quarter of a century the Professor of Anatomy in the University of Pennsylvania. Appearing in 1826, in two octavo volumes, under the title of "Special and General Anatomy," it had passed through the eighth edition two years before the author's death in the winter of 1853. As it now presents itself, it may be justly regarded as a most able and systematic treatise, thoroughly representing the existing state of the science, creditable alike to our age and country, and reflecting the highest credit upon the school with which Dr. Horner was so long and so usefully associated. In its general scope and character, it is a vast improvement upon its predecessor, and, notwithstanding the inelegancies of its style, will compare favorably with the very best foreign works on the same subject. Indeed, with the exception of the great treatise

of Cruvielhier, the elaborate system of Hildenbrandt, and the excellent production of Quain and Sharpe, there is not, so far as our knowledge extends, a more valuable and excellent work on anatomy in any language. Dr. Horner was a most zealous and laborious man, with a mind thoroughly imbued with a love of the science which he so ardently and so successfully cultivated for upwards of a third of a century. Indeed, taken all in all, he was one of the most able and accomplished anatomists of the age, and the only great anatomist that our country has yet produced. We do not speak of him here, of course, as a lecturer; in this respect he had many superiors; we refer altogether to his thorough knowledge of the subject, in all its relations, general, descriptive and surgical, to say nothing of the microscopical and pathological departments, in which his information was eminently respectable, if not profound,—to his extraordinary skill as a dissector, and to his zeal and untiring devotion to the cause of anatomical pursuits. Comparative anatomy we believe, never specially engaged his attention, and this is the only branch of the subject which he has not illustrated by his labors. With talents of no high order and many early educational deficencies, he accomplished results of which any man, however ambitious, might justly be proud. If he has not produced the ablest work on human anatomy that has ever been written, he has furnished one which reflects great credit upon our country, and which will serve to transmit his name honorably to posterity along with those of Winslow, Boyer, Meckel, Cruvielhier, Hildenbrandt, and other cultivators of the science.

In 1849 appeared the work of Dr. Samuel George Morton, whose ethnological writings, especially his elaborate treatises on the "Crania Americana," and "Crania Ægyptiaca," have earned for him a world-wide reputation, and conferred upon him an enviable immortality. The title of the work "An Illustrated System of Human Anatomy, special, general and microscopic," and its motto, "*Oculis subjecta fidelibus*," sufficiently express its nature and object. The book, in its mechanical execution, is one of the most beautiful that has ever been published; the engravings, amounting to nearly four hundred, are executed in the highest style of the art known in this country, and the paper and typography are altogether of a superior quality, nearly equal, in fact,

to those of the best English works on medicine. But here the merits of the performance cease. As a literary and scientific production it has nothing in particular to recommend it. In both these respects, indeed, it is inferior to many of the treatises previously in use, and accessible to American pupils. It is difficult to conceive what motive could have actuated the distinguished author in spending his time upon a work which, in no event, could enhance his reputation, or fill a void in the anatomical literature of the country. Following the beaten track, he has introduced no new arrangements in his topics, nor added one solitary fact to our pre-existing knowledge in any of the departments of anatomical science of which he treats. With the dissecting-room, it may be presumed, he has not much familiarity, and with the microscope not much experience. When men have acquired great proficiency and great reputation in one particular branch of science, it behoves them to pause and reflect before they undertake the composition of elementary works. When Dr. Morton set about this task he had reached the zenith of his renown as an ethnologist, and a period of his life, which should both have admonished him to refrain from an enterprise which any youthful aspirant after fame, with a moderate share of anatomical knowledge, might have executed quite as well as he. Nevertheless, as we have already said in regard to Wistar's work, we should not undervalue the "Illustrated System" of Dr. Morton, since, whatever may be its deficiencies, it is calculated rather to add to, than detract, from the dignity and importance of our national literature, a subject in which, as has been already stated, every true-hearted American must feel the deepest interest.

Such was the state of our anatomical literature at the close of the first half of the present century. It will be conceded, even if we include in the enumeration Dr. Goodman's Anatomical Investigations, Dr. Horner's United States Dissector, and Dr. Smith's Anatomical Atlas, that our stock was comparatively, a meagre one. This circumstance is not a little surprising when we take into consideration the great number of medical schools in this country, and the extraordinary advantages afforded in many sections of the United States for the prosecution of practical anatomy. During the same period, France, Germany, and England have each fur-

nished numerous and important works on the subject, eminently creditable to their authors and to the scientific character of the nations to which they respectively belong. The commencement of the present year has supplied us, almost simultaneously, with two new works on this department of medicine. Of these, one is from the pen of Dr. W. R. Handy, Professor of Anatomy and Physiology in the Baltimore College of Dental Surgery, and the other from the pen of Dr. T. G. Richardson, Demonstrator of Anatomy in the University of Louisville. These two works, added to those of Wistar, Horner and Morton, give the sum total of five native treatises on the subject; a result astonishingly small when we consider the number of works that have been published in some of the other branches of medical science.

The work of Dr. Handy, of which the mere mention must suffice, is entitled, "A Text Book of Anatomy and Guide in Dissection," and was professedly written for the use of students of medicine and dental surgery. Upwards of one hundred pages are devoted to the description of the mouth, gums, and teeth, and this circumstance, in the opinion of the author, if not also of the reader, constitutes the great and distinguishing feature of the work, which, in point of mechanical execution is altogether inferior to its cotemporary.

It is not our design to present an elaborate account of the work of Dr. Richardson; all that we shall attempt to do is to delineate its general scope and character. It is in fact, itself an analysis, and to analyze an analysis would be an absurdity.

The work is divided into three parts, the first being devoted to general anatomy, the second to the bones and joints, and the third to the dissection and study of the soft parts. The subject of general anatomy occupies about eighty pages, in which, limited as the space is, is discussed every thing that is really important to be known by the medical student. Until recently the study of the animal tissues was, unfortunately, too much neglected, both in the schools of the United States and of Great Britain, and there is reason to believe that it receives, even at the present day, too little attention. One cause, perhaps, of this is the want of a good text book. For a long time, in this country as well as in England, the only work to which the student could refer for information on this

branch of anatomy, was the great treatise of XAVIER BICHAT, translated by Dr. GEORGE HAYWARD, of Boston, and published in that city in 1822, in three octavo volumes. "Before the time of BICHET," as Dr. RICHARDSON justly observes, "no successful effort had been made towards a correct analysis of the body into certain distinct 'textures,' or 'tissues,' which are recognized by the unaided senses, and distributed throughout the different parts and organs. This illustrious Frenchman indicated, and followed as far as his means of study and his too short life permitted, this new direction of scientific anatomy." The work of BICHAT was the first attempt at a systematic arrangement of the tissues, according to their affinities and intimate relations, and the important part which they play in the construction of the different organs and systems of organs of the animal frame. Prior to his time all was darkness and confusion. BORDEU, towards the latter part of the last century had, it is true, written a treatise upon what he improperly called the mucous tissue; but, although his account was in the main suffiently correct, many errors necessarily crept into the work, and the principal good which resulted from the publication was, that it served as a guide board to BICHAT, in pointing out to him the path which he was destined afterwards to tread and pursue with so much credit to himself and advantage to science and humanity. The work which he published at the dawn of the present century, as the result of his labors, was one of vast toil and profound originality, and will, in whatever light it may be viewed, remain as an enduring monument of his genius, his research, and his indomitable industry. It comprises the germs of thousands of discoveries that have since been achieved in the various departments of medicine, especially in physiology and pathology, and is, beyond all doubt, by far the most precious contribution to our science that has ever been made by any individual. The discovery of the circulation of the blood by HARVEY was, in comparison with the revelations of BICHAT in general anatomy, a mere sun-beam as compared with the sun itself. BICHAT was emphatically the BACON of medicine. In him, more than in any other physician before or since his time, were happily concentrated vast genius, profound philosophy, and vast industry, with a spirit of generalization, of which, until then, the medical world knew no parallel. It seems

as if Providence had designed him for a special mission, to enlighten and benefit his profession, and that, having accomplished the objects of that mission, he should be prematurely summoned from his earthly toils to join, in a brighter and a better world, the master spirits that had preceded him thither. At the early age of thirty-two nothing remained of this great man, save his image, to his friends, his pupils, and his admirers; and his great and imperishable works to his profession and to posterity. Bichat is the father of general anatomy.

In 1828 appeared the excellent "Manual of General Anatomy," of Bayle and Hollard, in an English translation by Dr. Gross, then of Philadelphia. Soon after this Dr. Togno, also of Philadelphia, published a translation of Beclard's "Elements of General Anatomy." These two works exercised an important influence in directing the taste of our pupils in regard to the study of the tissues, and they continued to be, for a long time, the text-books of our principal schools. Dr. Craigie's well-known work on "General and Pathological Anatomy" was issued at Edinburgh in 1828, and the following year appeared, at London, Mr. Grainger's "Elements of General Anatomy," at that time, and for a considerable period afterwards, the only original treatises on these subjects in the English language!

The following extracts will serve to convey an idea of the author's classification of the tissues:—

"Bichat and his immediate followers, however, admitted as distinct tissues only the solid parts of the body, which in reference to their distribution he arranged into classes, or 'systems,' such as the 'muscular system,' &c. But modern anatomists have most clearly demonstrated that many of the fluids may justly claim a similar designation.

"The number of the solid tissues has been variously estimated from seven to twenty. The following table, however, in which only fifteen are enumerated, will be found to answer all ordinary purposes. The old, and most easily remembered classification, into 'general' and 'partial' tissues, *i. e.* tissues that are found in every part of the body, and those that exist only in certain localities, is here adopted:—

General Tissues.
1. Areolar or cellular tissue.
2. Vascular tissue, comprising blood-vessels, lymphatics, and lacteals.
3. Nervous tissue.

Partial Tissues.	4. Epithelial tissue. 5. Pigmentary tissue. 6. Adipose tissue. 7. Muscular tissue. 8. Fibrous tissue. 9. Yellow-elastic tissue. 10. Cartilaginous tissue, including fibro-cartilage. 11. Osseous tissue. 12. Cutaneous tissue. 13. Mucous membrane. 14. Serous membrane. 15. Glandular tissue."

Having given an account of the physical, chemical, and vital properties of the tissues, together with their development and growth from cells, the author proceeds to speak of the individual tissues, commencing with the areolar, cellular, or filamentous. Each of these subjects receives due attention, and is illustrated by beautiful figures, calculated to convey to the mind of the student a just idea of the nature of the object to which they relate.

Part second treats of the bones and joints, and occupies nearly one hundred and fifty pages. It has evidently been composed with much care, and comprises a very full account of these important objects.

Part third, after a brief introduction, in which the student is instructed in regard to the proper method of conducting his investigations in the dead-room, begins with the dissection and description of the abdomen, including an excellent account of the surgical anatomy of inguinal hernia. Under the head of the pelvis and its contents, will be found a very full and lucid description of the perinæum, one of the most important surgical regions of the body; and the anatomy of femoral hernia is very fully considered along with the structures of the inferior extremity. The organs of the senses, the thoracic, abdominal, and pelvic viscera, the blood-vessels, especially the arteries, and the nerves, are all described with much care and at great length. Finally, the work is accompanied by a table of contents and a most elaborate index, so desirable in all treatises of this kind. The woodcuts, nearly two hundred and seventy in number, are executed in the best style of the art, and add greatly to the intrinsic value of the work. The paper

and typography will compare favorably with those of similar treatises in England.

In his account of the appendages of the eye, the author has inadvertently fallen into an error respecting the discovery of the tensor muscle of the tarsus, which he ascribes to the late Professor HORNER, of Philadelphia, by whom it was first introduced to the notice of American, French and English anatomists in 1823. If he will refer to Dr. J. C. ROSENMULLER'S excellent "*Hand-buch der Anatomie des Menschlichen Körpers*," the third edition of which was published at Leipzig in 1819, he will perceive that Dr. HORNER was anticipated a number of years by the German author.

In describing the *ocular fascia*, which has been made, of late, to play so conspicuous a part in the diseases of the eye, no mention is made of the fact that that structure was first accurately delineated by a gentleman of this city, several years before it began to attract the attention of English and continental writers, in connexion with the subject of strabismus.

These little matters, however, are circumstances of no moment, and such as might very readily have occurred to any one, however extensively acquainted with the literature of anatomy.

One of the most commendable and interesting features of the present work, is the substitution, where this was practicable, of English for Latin terms. In perusing the works on anatomy, hitherto published in this country and Great Britain, the reader's eye and ear are constantly shocked by the monstrous character of the nomenclature which pervades and disfigures every page of these writings. If we must have Latin names, let us have them by all means, but give them to us in their pure and undiluted state, not intermixed at every line with English. Is it not very absurd, for instance, to speak of the internal mammary vein in one paragraph, and in the one immediately succeeding it of the *vena azygos*, of the femoral artery and of the *arteria profunda*, the common carotid and the *arteria innominata*, the parietal bone and the *os frontis*, and, not to multiply examples, of the semi-lunar valve of the eye and the *musculus levator palpebræ superioris*. In our judgement, nothing can possibly be more barbarous, or more repugnant to good taste, than such a medley. The work of our author, will, we doubt not, go far to correct a

practice which, while it is in every respect offensive to good taste and good scholarship, admits of no excuse, because there is really not the slightest necessity for it. We have for many years deprecated this practice in the lecture-room, and in a treatise on anatomy, prepared many years ago, but which has never been completed, we adopted precisely the same method as that set forth in the work under consideration. The author deserves much praise for having set an example, which is sure to find many imitators. In France and Germany a uniform anatomical nomenclature has long been in vogue, as every one acquainted with the anatomical literature of those enlightened countries is aware.

Another important feature of the work, is that it combines general with descriptive anatomy, and descriptive with practical, thus enabling the student to investigate these different departments, without compelling him to purchase separate treatises upon each. With many of our pupils this is a very serious desideratum; for to say nothing of the inconvenience involved in referring to different works on the same branches of science, not a few of them are in straitened circumstances, and can, therefore, ill afford to spend their means in this manner.

Finally, the style of the work is always clear and accurate, and hence the author never fails to make himself perfectly understood. Nothing of the ornate is any where visible, for the reason that any attempt of this kind would have been highly inappropriate, if not ridiculous, in a treatise rigidly scientific and descriptive. The author has executed his task ably, faithfully and systematically. Practically conversant with the dissecting-room, he has written from observations made upon the dead subject, and thus produced a work admirably adapted to the wants of the medical student. "*C'est,*" says Mons. H. Cloquet, "*avec le scalpel à la main qu'on doit faire un ouvrage d'anatomie.*"

We have said that the author of this work is a young man. This circumstance, so far from being an objection to the work, constitutes one of its chief claims to public patronage. Who but a young man can fully appreciate the wants of the student of practical anatomy? Who but young men frequent the dissecting room? If the work were one on practical medicine, surgery, or obstetrics, we should naturally expect the author to be an older

man, not necessarily, however, because old age does not always bring experience; but in a work of this kind, age alone does not confer knowledge, nor necessarily imply wisdom. It would not be difficult to find in the various walks of literature—philosophy, poetry, jurisprudence, theology, medicine, natural history, and physical science—examples of young men who have produced great and noble works as the fruits of their early observation and industry. To go no further than our own profession, it may be stated that ANDREAS VESALIUS, the great anatomical reformer in the sixteenth century—the man who performed the same service for anatomy that Luther performed for religious and political freedom—published his work, "*De Structura Corporis Humani*," when he was scarcely twenty-five years of age, and RICHARDSAND gave to the world, almost before he had attained his majority, his celebrated "Elements of Physiology," one of the most erudite and beautiful treatises of the kind that have ever appeared in any age or country. It was in view of this circumstance that the French author was induced to insert the following sentence in his preface: "If any one should conceive the present undertaking to be above the capacity of my age, I will say, even at the risk of a paradox, that young men are, perhaps, best fitted to compose elementary works; because the difficulties which they have encountered in their studies, as well as the steps which they have taken to overcome them, are still fresh in their memory."

We do not make these remarks by way of apology for our author, for no apology is necessary when a task has been so well executed; nor do we use the phrase "young man" as synonymous with that of "young physic." With the latter we feel no very particular sympathy. True progress, active, steady, persistent exertion, directed to the accomplishment of a specific object, or to the attainment of some great end, requires not the patronage of any particular name for its full and perfect development. Men are judged, the world over, by the result of their labors, as the tree is by its fruit, and it has yet to be shown that mere idle boasting, mere vaunting expressions, or the adoption of a new-fangled name, has ever added one jot or tittle to the advancement, the dignity, or the influence of the medical profession. If "young physic" has done any thing in this way, we are free to confess our ignorance of the fact.

Art. IV.—HOMŒOPATHY, ITS TENETS AND TENDENCIES, THEORETICAL, THEOLOGICAL, AND THERAPEUTICAL.

By James Y. Simpson, M. D., F. R. S. E., *Professor of Midwifery, University of Edinburgh; and Physician-Accoucheur to the Queen for Scotland. President of the Medico-Chirurgical Society, and of the Obstetric Society; lately President of the Royal College of Physicians; formerly President of the Royal Medical Society, and of the Royal Physical Society, Edinburgh; Foreign member of the Imperial Academy of Medicine of France; member of the Society of Surgery of Paris; and of various Medical Societies in Stockholm, Copenhagen, Berlin, Ghent, &c., &c.* First American, from the Third Edinburgh Edition; Philadelphia: Lindsay and Blakiston, 1854.

Of all Medical heresies, Homœpathy has stood its ground for the greatest length of time, and exerted the most potent sway over the minds of men; and yet that it *is* a heresy no one can doubt who has looked into the subject. Our belief is, that the Homœopathists themselves have no faith in their medicines. We do not think it possible for any man, in his senses, to believe that the billioneth or decillioneth of a grain of oyster-shell, or camomile, or belladonna can exert the slightest possible effect upon the economy. Hahnemann, its founder, never believed it; in truth he had no faith in medicine, but thought sick people would be none the worse if left to themselves; and this is precisely where his system leaves them—with the *vis medicatrix naturæ*. He avowed that he gave medicines very seldom, though, he was in the habit of adding, he always prescribed *small powders*. He gave the "small powders" for the sake of keeping up in the patient's mind the belief that he was taking medicine. It was his observation, that most patients will recover by a simple regimen, and by the exercise of a boundless confidence in their medical attendants.

This is now believed, by all men who have thoroughly investigated the pretensions of Homœopathy, to be the principle upon which this most absurd system has so far succeeded. But our patients do not understand the secret. They see pulsatilla, acomite, and oyster-shell administered in infinitisimal doses and the subjects of the practice getting well. Homœopathy seems to them to cure the disease. How are they to learn where the fallacy lies? We answer, physicians must instruct them. The public must be informed through the medical profession. Let common sense be appealed to; let men understand what Homœopathy professes, and they will open their eyes. They will not discredit the cures which they have seen taking place under the lilliputian doses, but they will learn to laugh at the ridiculous assumption of the Homœopathist to have made them by his oyster-shell or belladonna globules. They will see that the cures were the work of nature, and not of the inane and negative practice resorted to. Most of the practitioners of this sect, and we incline to think all, fully understand this principle, and only apply Homœopathy in cases where the utility of more potent medication is not clearly apparent. They spread out the snare of their system "as a golden man-trap to catch credulous and trusting patients, and afterwards either openly or surreptitiously apply to them all the usual means employed in the armentarium of rational medicine." They give their remedies by the billionth of a grain in obscure or trivial cases, but by grains and scruples where experience has taught the efficacy of the article. They wish to be considered Homœopaths, but take care to drug their globules with active doses of the most powerful medicines. There was far more of knavery than of folly in the old inventor of this humbug, as his biographers have proved, and his followers, in this respect, have borne but too striking a resemblance to their master.

Homœopathy has become one of the facts of the times—not a "fixed fact," we think, but one which meets us in our professional rounds, and stares us in the face whenever we look out upon the world of physic. We cannot shun it nor blink it. It has got into high places, and ranks among its advocates men of science and note. We must, as a profession, deal with it, and, in the shortest practicable time, dispose of it. It has been exposed again, and

again. Dr. SIMPSON, in the work before us, has exposed it once more, and his exposure is so thorough and complete that we have determined to treat our readers to some extracts from his eloquent and admirable book.

Some illustrations of HAHNEMANN's well known principle, *similia a similibus curantur*, are given by Dr. SIMPSON, which will probably be new to our readers, and we suspect, would startle the dupes of the Homœopathic practice. Dr. MURE, it seems, one of the ablest writers of this sect, has lately made the discovery that *itch* (the prolific source of our bodily ills, according to HAHNEMANN) is to be cured by small doses of lice, or lice-tea.. Upon the same principle, "bugs in the thirtieth dilution," are recommended for curing the inflammation arising from bug-bites; the matter ejected by Cholera patients, after being "potentized," is to be swallowed for the cure of cholera; yellow-fever patients are to swallow the black vomit, duly prepared; the scales of scarlatina are used as a prophylactic against that disease; leucorrhea is cured by potentized leucorrheal matter, and the expectoration of phthisis is given to consumptive patients. Drs. TIETZE, SCHNAPPAUF, and other German Homœopaths with unpronouncable names, have lately treated small-pox patients with doses of the matter of small-pox and cow-pox. We wonder if human folly can descend to lower depths than these. When the deluded subjects of this practice come to understand the species of medication to which they have been submitting, can any one doubt that they will turn away from it with loathing and indignation?

But the Homœopaths are too shrewd to trust entirely to such remedies as these; they fully comprehend the method of inspiring their subjects with faith in their globules. The following extract contains the confession of one of these practitioners:—

"Patients who are skeptical of the truths of Homœopathy, from a love of variety, or a hundred other reasons, will consult you. As these persons are inclined to ridicule infinitesimal doses, it is sometimes highly useful to give them powerful doses of various highly concentrated medicines, in globules similar in appearance to all the rest, but consisting of morphia, strychnine, arsenic, corrosive sublimate, and such like; a few of these mingled with your sugar and starch globules will cause effects to be felt by the skeptic which will quickly overcome his disbelief; he generally

makes an excellent patient, and often a good decoy-duck. Never scruple in paralytic cases to give strychnine largely, but never allow it to be supposed that you are giving more at a dose than the one-hundred-thousandth of a grain. This rule may be followed in other complaints with other very active drugs, such as croton oil; but this is one of our profoundest secrets, and must be kept so. Were it known, our wonder-working powers would be reduced in the estimation of the public and the regulars."

"It holds good," says HAHNEMANN, "and will continue to hold good as a Homœopathic therapeutic maxim, *not to be refuted by any experience in the world*, that the best dose of the properly selected remedy is always the very smallest one, as well for chronic as for acute diseases." His smallest dose, which he holds to be his most powerful, is the decillionth of a grain or of a drop of the drug, whatever the drug may be, strychnine, arsenic, or oyster-shell. What is this dose—*the decillionth of a grain?* Dr. SIMPSON attempts to give his readers some conception of it by the following illustration:—

"I have already stated that the earth is computed to contain, at the present time, some 900,000,000 human beings; and that if all these 900,000,000 had been called into existence when Adam was created—some 6000 years ago—and had lived up to the present time, and each of these 900,000,000 individuals had, when first called into existence, begun to swallow, and continued to swallow up to the present hour, without rest or cessation, night and day, a decillionth dose of a grain (say a grain of sulphur or quinine, or other drug,) such as Hahnemann recommends to be used, these 900,000,000 beings would not yet, during these past 6000 years, have finished one single grain of the medicine. Nay, if each of these 900,000,000 men, now 6000 years old, had swallowed, during *every* moment of their past existence, not a single globule, but *one million* of globules of Hahnemann's 30th dilution, they would not yet have finished a single grain, and would not finish it, working constantly every second at the same rate, for millions of centuries yet to come.

"Yet Hahneman and his followers calmly tell us, that—take two or three of these single decillionth doses of a single grain of their drugs, and with these infinitesimal doses of the requisite medicine you may cure any acute or chronic curable disease to which mankind is liable. And that one of these decillionths is truly the proper dose of the medicine to be used, is "a therapeutic maxim (says Hahnemann) not to be refuted by any experience in the world."

"To understand, if possible, the exiguity of "the best" dose of

a homœopathic drug as thus laid down by Hahnemann, let us turn to another means of stating the infinitesimal amount of the dose. For this purpose let us suppose, merely for the sake of illustration, that the drug employed was commixed with a mass of sea-sand, as its vehicle or medium, instead of a mass of sugar or starch, such as is employed in forming homœopathic globules and powders.

"Most rational men, whether acquainted with medicine or not, would surely and justly look with perfect incredulity upon any physician who should maintain that *one* single grain of sulphur (to take it as an example) properly commixed with a heap of sand made by reducing to powder the stones, &c., employed in building and rearing all the houses in Edinburgh, or in London, or in Great Britain, would impart to each of the particles of the heap a sufficient amount of sulphur to enable it, if swallowed, to be a proper and sufficient dose for curing a man of itch. Or if some enthusiast were to spring up and aver that a single grain of phosphorus or of aconite, so infinitely divided, that an equal portion of one grain of these drugs distributed among *all* the particles of sand that lie on all the sea-shores of Great Britain, from Caithness to Cornwall, could change and medicate each one of these grains of sand, so that any dozen or two of them picked up along the coast of England or Scotland would, if swallowed, be certain to influence and cure a case of inflammation of the lungs, or of inflammatory fever, if given to men affected with these diseases, would the world not deem the asserter of this fact to be stating something beyond the bounds of mere extravagance and excentricity? And, if our supposed enthusiast were further coolly and deliberately to aver, that his single grain of phosphorus or aconite, if divided amongst all the grains of sand to be found along all the sea shores of our world, would equally, if not more certainly, cure the same inflammation or fever, would he not be looked upon as a man outraging every principle of possible belief? But the Homœpaths aver infinitely more than this. Hahnemann and his followers, in using the 30th dilution of aconite, phosphorus, &c., aver that a *single grain* of any of them, distributed equally through a mass of sand as large as the bulk of the whole earth itself, or indeed through a mass of sand even millions of millions of times greater than the earth, would bestow the same healing property upon one and all of the particles of sand forming these immense masses, and that any ten or twenty of these medicated particles would form "the best" dose of the drug for the supposed case of pneumonia or fever.

"It has been computed that a cubic inch of sea-sand contains a million of particles of sand. The globe of our earth is reckoned be physical geographers to contain about four thousand millions of cubic feet, or nearly seven quadrillion cubic inches. If the

whole mass of the earth from its surface to its centre were bruised down and converted into sea-sand, and a single grain of any homœopathic drug, as a grain of sulphur, or aconite, or phosphorus, were so commixed with the sand that each particle of sand had a proper relative share or allotment of this single grain, each of these particles would contain *more* sulphur, or aconite, or phosphorus, than the homœpaths use when they use the decillionth of a grain of sulphur, or phosphorus, or aconite, or any other of their drugs in the 30th dilution. It would require, in fact, a mass of sea-sand millions of times greater than the whole mass of the earth to reduce each particle of sand to a homœopathic decillionth.—Or, to state it otherwise, a decillion of particles of sea-sand would make a million of worlds or globes as large as the earth. The diameter of the earth is nearly 8000 miles; the diameter of the orbit of Neptune is nearly 6000 millions of miles; a vast difference. But even a world or sphere of sea-sand, with a diameter equal to that of the orbit of Neptune, would not have its particles reduced to a decillionth. In other words, each of the single particles in this vast mass would be larger than a decillionth of the whole; and the proper dose of a single grain of a drug divided equally among these decillionths would be one particle picked out of this inconceivable mass of sand.

"In order to impart to the human mind some faint, very faint, idea of the enormous distance of the stars, writers on astronomy have had recourse to a variety of illustrations. It has been computed that a cannon-ball, impelled with the greatest velocity which art can produce, would travel at the rate of 600 miles an hour; and flying at this rate, would require twenty years to pass from the earth to the sun, and about five millions of years ere it could reach the nearest fixed star. But the velocity of light is immensely greater. According to Struve's late investigations, it flies at the rate of 166,000 geographical miles, or nearly 200,000 English miles, in a second. Travelling at this enormous rate, a ray of light passes from the Moon to the earth in 1¼ second; from the Sun to the earth in 8 minutes; but would require about three years to travel from the fixed star *a Centauri* to the earth. Other stars, however, are vastly more distant. The elder Herschel calculated that light, travelling at the enormous velocity we have stated, would require almost two millions of years to pass to the earth from the remotest luminous vapour reached by his forty feet reflecting telescope. And Professor Nichol imagines, from later observations with stronger instruments, that possibly there may be stars "situated so deep in space that the rays of light from them do not reach our earth until after travelling across intervening abysses during centuries whose number stuns the imagination." Possibly there may be some, he imagines, from which

light would require to travel *thirty millions of years*, in order to reach our planet.

"Truly, such astronomical calculations do, as Professor Nichol observes, "stun the imagination" of man. They are as naught, however, in comparison with the ideas and computations of homœopathists. For one single grain of any homœopathic medicine, as sulphur, quinine, silex, &c., &c., &c., divided into decillionth globules of the 30th dilution, and arranged as twenty globules to the inch, would form a continuous line or string of globules reaching far, far beyond this inconceivable profundity in space. In other words, this grain of sulphur, &c., &c., &c., would, when divided into a decillion of homœopathic globules, make a line over which light, travelling at the rate of 200,000 miles in a second, would require above 1,000,000,000,000,000,000,000,000 years to pass along. Yet, aver Hahnemann and his followers, any one of these decillion globules of a single grain of the proper drug, picked out of this inconceivable length of line, would be found duly medicated for the treatment of all diseases, acute and chronic, and would form the most appropriate dose for their treatment. Truly the human imagination sometimes rapidly passes from the sublime to the ridiculous.

"A row of homœopathic globules, extending enough to form a string 25,000 miles long, and which consequently could encircle the earth, would be passed over by a ray of light in the eighth part of a second, or "in the twinkling of an eye." But it would require a ray of light to travel millions of millions of millions of years, before it could pass from one end to another of one single grain of sulphur, or any other homœopathic drug, laid out in homœopathic decillionth globules,—such as Hahnemann used and declared to be, both in acute and chronic diseases, the proper medical dose, "not to be refuted by any experience in the world." A continuous row of globules from Edinburgh to London—or, in other words, a row of them as long as an express railway train would take twelve hours to pass over, might, at first thought, appear extravagantly long, particularly when it was alleged that all of these numerous globules could have subdivided among them a single grain of a drug, so as to impart to *every* globule in the line the medicinal action of that drug. But how comparatively short is a 400 mile line of globules, to a line of them so extended, that light, travelling at the rate of 6,000,000,000,000 miles a year would take above 1000 sextillions of centuries to fly along it? And yet, as Hahnemann asserts, *one single grain* of a medicine distributed equally along this enormous line of globules, would invest *each* of the constituent globules with a power of curing diseases; and forms, in fact, *the* best and appropriate dose of each common drug.

"Some homœopaths, however, use their drugs not in GLOBULES or

particles, such as the preceding illustrations refer to, but in TINCTURES or Solutions. Let us consider for a moment the tenuity of these homœopathic solutions or tinctures.

"Soon after the promulgation of Hahnemann's doctrines it was suggested that, "If the decillionth part of a grain have any efficacy, an ounce of medicine (Epsom salts) thrown into the Lake of Geneva would be sufficient to physic all the Calvinists of Switzerland."

"But more careful systematic calculculations have shown that this is stopping infinitely short of the truth; and that the 30th homœopathic dilution, recommended as we have seen by Hahnemann in all cases, is, in such a parallel, enormously understated, instead of over-stated. In fact, the 10th solution alone would, as Mr. Cap has shown, require for its proper solution, a body of water 500 times greater than the bulk of the Lake of Geneva; or a sea somewhat larger than the Gulf of Venice. To make the 11th solution, a quantity of water greater than the Mediterranean Sea or the German Ocean would be necessary. The 12th solution could scarcely be accomplished in a sea extending over the whole surface of the earth, and 500 fathoms in depth. And if the whole Solar System were buried in an ocean extending in depth from the Sun to Neptune, it would not form a sufficient fluid medium for adequately dissolving to the 30th dilution a common dose of any of the common medicines of the homœopathists. Yet the homœopathists allege, a few drops or sips of the proper medicine, properly dissolved in such enormous medicated seas and oceans, infallibly acts and cures; and that each drop would be found of "terrific potency," if the drug were duly mixed."

It is sometimes asked, how does it happen, if Homœopathy be such a nullity, that some eminent and able physicians have been made dupes to the delusion? We can only answer the question by pointing to the fact, that as eminent and able medical men have been carried away, in times past, by fallacies just as absurd. There were noted and learned physicians, half a century ago, who gave themselves up to the follies of Perkinism, who believed as firmly in the virtues of the metallic tractors as Dr. HENDERSON (of whose conversion we quoted from the work under notice an amusing account in our last number) does in the powers of the microscopic globules. Nay, have we not seen distinguished physicians, in our own day, stoutly insisting upon the truth of *clairvoyance*? The truth is, there is nothing too absurd to be embraced by minds of a certain stamp, and unfortunately not a few of these have been enlisted, in every age, in the service of medical quackery. Honest,

conscientious men they have often been, but with minds incurably prone to humbug. With some mental infirmity, or else a self-esteem which led them to suppose themselves wiser than all other men, they have been the ready victims of impostures which the common sense of mankind at once detected. What at this moment is passing before our eyes? The whole credulous world led captive by "Spiritualism," by table-turning, and table-knocking, and in the mixed multitude of deluded followers a goodly proportion of medical men.

It is no argument for the truth of a system that it has respectable advocates, since as we have seen the most monstrous systems have found ardent and sincere adherents. But then, as has been admitted, there is that in Homœopathy which bears the semblance of truth, and which has kept it fresh and comparatively vigorous amid the decay of so many kindred fallacies. It inspires the sick with confidence, and leaves their cases to nature, which happily, is competent to the cure of most of them. But the delusion is on the decline. It is fast dying out in Germany, the land that gave it birth, and is losing ground in France and Great Britain. It will yield last in this country, but already we begin to perceive unmistakable signs of its decadence. This work of Dr. Simpson will hasten its dissolution, and for this reason we greatly desire to see it attain a wide circulation. We assure our readers that they could not procure a more *piquant* book, one abounding more in curious facts and instructive details, relating in any way to medicine, than it is. Let it be read and its incontrovertible facts given to the people.

Editorial Department.

UNIVERSITY OF LOUISVILLE.

The eighth session of the Medical Department of the University of Louisville, and the seventeenth of the School, closed with a public Commencement, in the Chemical lecture room, on the evening of the 3d inst., in presence of the officers of the Institution and of a large assemblage of ladies and gentlemen. The exercises were opened with prayer by the Rev. Dr. W. L. Breckinridge, after which the President, *pro. tem.*, of the Board of Trustees, James Speed, Esq., proceeded to confer the degree of *Doctor of Medicine*, upon seventy-nine young gentlemen, who had passed satisfactory examinations before the Medical Faculty, and complied with the other requirements of the University. The honorary degree of *M. D.* was conferred upon Dr. J. P. Epperson, of Pulaski, Tenn., and the *ad eundem* degree upon Dr. Pleasant B. Robinson, of Huntsville, Ala., a graduate of the Cincinnati Medical College. Prof. Silliman pronounced the Valedictory Address to the Graduates on behalf of the Faculty. It was an address of uncommon merit, abounding in just thoughts, and elevated sentiments, forcibly and eloquently expressed. The subject was Education and the duties of educated men. Prof. S. urged the importance of a higher standard of education in our country, as a means of correcting the tendency of the public mind to embrace quackery in all its forms. He showed that the effect of thorough scientific knowledge was to suppress superstition. In order to the creation of a class of scholars profoundly skilled in all the departments of human knowledge, he insisted that it was neeessary that we should have an institution of a higher order than any now existing in

our country—a *National University*, where the graduates of our Colleges and Universities might repair to perfect themselves in their chosen departments of science or art.

At the close of his address, Prof. SILLIMAN announced that he was then performing his last official act in the University of Louisville, having already tendered his resignation to the Board of Trustees. He would not attempt, he said, to describe the contest of feelings through which he had passed in reaching that determination. He had experienced great difficulty in coming to it, but Providence seemed to have indicated that it was his duty to return to the theatre of his earlier labors. He spoke of the perfect harmony that had prevailed in the Faculty, and of his pleasant relations with all the members who had belonged to it during his connection with the school, in handsome and fitting terms. He returns to New Haven, to occupy the place of his distinguished father, in Yale College, and we have no doubt that he will satisfy the highest expectations of his friends in his new sphere of action. To the ample stock of chemical knowledge, and his expertness of manipulation in the laboratory with which he came to the University, he now adds several years of the most valuable experience as a public teacher. He bears with him the confidence and best wishes of his colleagues and pupils.

The session which terminated with these exercises was a pleasant and entirely prosperous one. The class was larger than any preceding one since the year 1849, numbering two hundred and eighty-seven. The graduates presented a fine appearance, and among them are men capable of reaching any point they desire in their profession. No class, we are persuaded, ever retired from the institution more favorably impressed with it as a seat of medical learning. The lectures, the hospital, the University Clinic, the dissecting rooms, all gave satisfaction. It is gratifying that the school, for a long time past the great school of the Mississippi Valley, has maintained its relative rank among the medical schools of the United States notwithstanding the temporary declension of its classes, being still the third in point of numbers; and the causes which affected it injuriously having ceased to operate, its friends have a right to indulge in expectations of its continued prosperity. The Board of Trustees have a fund at their command which ena-

bles them to make large annual additions to the library, museum, and all the apparatus of medical instruction. The reputation of the School is such, that they have no difficulty in filling vacancies, when they occur, with men of repute. The Chair of Chemistry now vacant, they are resolved to fill with a Chemist of distinction.

Prof. FLINT has sailed for Europe where he will spend the vacation, visiting the hospitals of the chief cities, and making purchases for the University. He expects to return early in October.

DR. WILLIAM S. CHIPLEY.

WE are glad to learn that our friend, Dr. W. S. CHIPLEY, has been elected Professor of Theory and Practice of Medicine in Transylvania University. It is the best appointment the Trustees could have made. Dr. CHIPLEY is a man of real ability—a scholar, a student, a practitioner of large experience, a strong writer, and impressive, fluent lecturer. He has been one of our most esteemed correspondents, and was a short time since President of the Kentucky Medical Society.

REPUBLICATION OF ENGLISH WORKS.

OUR learned correspondent, in his remarks on reprints of English works by American publishers and their indiscriminate praise by our medical journals, is hardly just, we think, to those who have control of the medical press. No doubt the laudation is quite too general, and that the system is injurious to our native literature; but we are sure that our able correspondent has not hit upon the true explanation of it. The real cause is not selfishness, but indolence; it is easier to praise a book in general terms than to criticise it intelligently, and this is the chief reason why the praise of foreign works is so indiscriminate. We take their merits, for the most part, upon trust, without thorough, much less critical, examination. We are free to confess our short-comings in this particular, and suppose most of our brethren would have to own, that, in the press of other urgent duties, they have sometimes been tempt-

ed to commend hastily. But there is this to be said in extenuation of the practice, which certainly cannot be justified, that the wheat which comes to us across the Atlantic has generally been thoroughly winnowed at home, and but little of the chaff is likely to reach our shores. It is a rare mistake for one of our shrewd publishers to fall upon a worthless English book. They have had the benefit of all the light of the English periodical press, and seldom venture upon a republication until the book has run the gauntlet at home. Still, we agree with our correspondent, that we ought not to be contented with this state of things. It is time we had declared our independence of the mother country in this particular also, and as a profession had set up for ourselves. Let us encourage our own writers; let us foster our own indigenous literature.

TENNESSEE HOSPITAL FOR THE INSANE.

The Report of Dr. W. A. Cheatham to the Legislature of Tennessee on the Hospital for the Insane under his charge, is a document of great interest, and reflects credit upon his judgment, patience, and skill as Superintendent and Physician. Dr. Cheatham entered upon his duties an untried and inexperienced man, but, his report shows, not without high qualifications for the delicate and responsible office. His success has been most gratifying. No institution of the kind in our country can show better results for the last year, which is the first year of this noble charity. It is conducted upon the true principle—that of gentleness and benevolence. All that science and experience have done to ameliorate the lot of the insane in other asylums has been introduced by the enlightened Superintendent into this. He is equally fitted by nature and professional study for the management of such an institution, and under his wise administration it will prove an ornament and a blessing to the State. The situation of this Hospital is well chosen; it is in a beautiful and healthy country, a few miles from Nashville. In proof of its salubrity it is stated by Dr. Cheatham, that "for nearly a year but one death has occurred" in the Asylum.

AMERICAN MEDICAL ASSOCIATION.

The next meeting of this National Society, our readers will please not forget, is to be held in St. Louis, in a few weeks from this time—it commences on Tuesday the 2d of May. All societies entitled to representation ought to see to the appointment of delegates who will attend the meeting. It is not to be expected that so large a number of Eastern members as have attended upon former meetings will be present at this, owing to the great travel necessary to reach the place of meeting, and for that reason there should be a much fuller attendance from the West. We trust that the strength of the western profession will be there. We owe it to ourselves to foster this Association; it is a high professional duty. If through the apathy of the members of the profession it should be allowed to languish, the whole profession would feel it.

The delegates from the University of Louisville are Prof. S. D. GROSS, and Prof. LEWIS ROGERS.

KENTUCKY MEDICAL SOCIETY.

The State Medical Society of Kentucky was organized, at Frankfort, in October 1851. The following October it met at Louisville, and was well attended. The proceedings excited a great deal of interest. A number of very able reports were read, and formed a volume of transactions creditable to the medical profession of Kentucky. The Third meeting of the Society was held, in October last, at Lexington, but although great preparations had been made by the physicians of that city for the reception of the Society, and though the committees appointed to make reports had been industrious in preparing for their duties, the attendance was small. The meeting was a spirited one, and the reports read were elaborate and thorough; but the state of the Treasury, owing to the small number of members present, is such that the Proceedings are not likely to be published. It is feared, that the first volume which elicited so much praise and was regarded by the Society

with so just a pride, will also be the last. This is not worthy of the profession of Kentucky. We had expected a different result. The beginning was so spirited, so full of promise, that we had counted on seeing the Society go on from year to year growing in fame and usefulness, extending its researches, developing the medical history of the Commonwealth, and animating the members of our profession with a livelier zeal for its advancement. We still hope that new energy will be infused into it, and that we shall yet see it successfully pursuing its high mission. From the following card it will be seen, that Dr. R. J. Breckinridge is collecting the materials for a report on the "Medical Biography of Kentucky," and we would urge our Kentucky readers to respond to his call:

"It is the duty of the undersigned to make a report to the State Medical Society, at its next annual meeting, on the Medical Biography of Kentucky. The suitable discharge of this duty requires the assistance of medical men throughout the State. The undersigned earnestly desires to receive from *all* persons friendly to an attempt to preserve a record of this kind, brief notices or fuller sketches of deceased physicians who have spent the whole or any large part of their active professional life in this State—who have been identified with the profession here, either as teachers or practitioners of medicine.

That this record may be as complete as possible, it is desirable that the notices sent should be full and minute, though meagre ones will be more acceptable than none.

They should be forwarded before the 1st of September, and as much earlier as may be convenient.

R. J. BRECKINRIDGE.

Louisville, February, 1854.

DR. STOKES ON FEVER.

Dr. Stokes admits that his opinions in reference to fever have undergone a great change since he first became a lecturer on the Practice of Medicine. After describing the former practice, in a lecture recently delivered in the Meath Hospital, Dublin, he says:

"The treatment of fever is reducible to a simple formula. We cannot cure fever; no man has ever cured fever. Fever in this sense may be called incurable, because we don't know how to cure

it. It is, however, curable by itself. If you leave it to its own course, it will often cure itself. The great object, then, is to preserve the patient's life from the dangers which threaten him, pending the existence of this condition of fever—of this special state of life. If you can keep him alive to the fourteenth day, or the eighteenth day, or the twenty-first day, he will recover. What are the dangers that occur in these cases? One I have already pointed out to you—it is the danger of debility; the other is the danger arising from the accidental secondary affections. We cure the patient by preventing him from dying. We lead him on to that period when by the extraordinary law of the disease, it will itself spontaneously terminate. We prevent him from dying of exhaustion, by food, by the use of stimulants, and by tonics. We save him from the danger which the local diseases may expose him to, by meeting them as early as we can discover them. And herein lies the whole secret of the treatment of fever—to preserve the patient, at the least expense to his constitution, up to the time when, by the natural law, the disease will spontaneously subside.

DEATH OF MEDICAL EDITORS.

We record with pain the death of Dr. HESTER, Editor of the "New Orleans Medical and Surgical Journal." Dr. H. died of epidemic cholera on the 1st of December last, aged forty years. In 1844, in conjunction with Dr. E. D. FENNER, he established the journal mentioned, and after the withdrawal of Dr. F., he continued to conduct it alone, with eminent ability and success, up to the time of his lamented death. He was a man of high character, an able, independent journalist, an acute, forcible writer, and a physician greatly esteemed. The New Orleans Journal, for which he labored with uncommon industry, has acquired a wide popularity, and been productive of the happiest results to the profession.

Dr. RICHARD L. HOWARD, Professor of Surgery in Starling Medical College, and Editor of the "Ohio Medical and Surgical Journal," died of pneumonia, consequent upon Bright's disease, on the 15th of January, in the forty-fifth year of his age. His health had been declining for many months, and about a year ago albumen was detected in his urine. Dr. H. was a popular and instructive teacher, and as an Editor was courteous, dignified, and judi-

cious. He did not write a great deal, but what he did produce gave evidence of a strong, discriminating mind. He was much beloved by his pupils, and maintained among men the character of a pure, upright man. Struggling in early life with poverty and many adverse circumstances, he rose to a position where ease, honor, and wealth seemed within his reach, but at a moment when life was most full of promise untimely death came to blight all his earthly prospects.

In the death of Dr. HESTER and Dr. HOWARD, our profession has lost two valuable and honored members, and the editorial corps two of its ornaments. Dr. HESTER is succeeded in the editorship of the N. O. Medical Journal by that learned and original writer, Dr. BENNET DOWLER, and Dr. JOHN DAWSON, also a writer of great industry and learning, takes charge of the Ohio Medical Journal. We hardly know the equals of these gentlemen for patient, indu-ring application, and with such attainments as they have made in their profession, and such practice as they have acquired as writers, added to their laborious habits, there is reason to expect that these journals will attain a still higher standing under their direction.

BOOKS RECEIVED.

We have received a great many books of late which we can only acknowledge in the present number. We shall speak more particularly of them hereafter.

We are indebted to Dr. LAROCHE, of Philadelphia, for an interesting monograph on Pneumonia and Autumnal fevers, in their relation to Malaria.

Dr. BENNET DOWLER has sent us his "Tabuleau of the Yellow Fever, of New Orleans, in 1853," which is distinguished for research, as are all the productions of this laborious physician.

Our thanks are due to Dr. FENNER for an able monograph on the same subject. We hope to find room for an abstract of both these works in our next number.

PROF. FLINT has favored us with Reports on Dyssentery and Chronic Pleurisy. These reports are based on the analysis of nu-

merous cases, and will be found to embrace many valuable facts, and to be singularly free from vague generalizations.

Besides these, we have also received the profound treatise of Mr. LAWRENCE on Diseases of the Eye, edited by Dr. ISAAC HAYS, a standard work on this important subject; the second volume of PEREIRA's encyclopædian treatise on Materia Medica; a treatise by M. A. VIDAL (*De Cassis*) on Venereal Diseases, translated and edited by Dr. GEORGE C. BLACKMAN, of New York, who has made valuable additions to the original; a Practical Treatise on Inflammation of the Uterus, by Dr. JAMES HENRY BENNET, who has become so eminent for his attainments in this speciality; the Lectures on Surgical Pathology, by Mr. PAGET; a Manual of Obstetrics by Dr. T. F. COCK, of New York; a new edition of ELLIS' popular Medical Formulary; a new edition of BUDD's admirable work on the Liver; and a treatise on Diseases of the Ear, by Mr. WILDE, Fellow of the Royal College of Surgeons, of Ireland, &c.

To these, we have to add the Seventh Annual Report of the Board of Regents of the Smithsonian Institution, for the year 1852; and the Annual Reports of the Pennsylvania and Indiana Hospitals for the Insane. Just as this number was going to press, we had the pleasure to receive from our friend, Dr. W. L. SUTTON, the First Annual Report on the Births, Marriages and Deaths, in Kentucky, from January 1, 1852, to December 31st, 1853, digested and prepared by that indufatigable physician. The mass of statistics herein presented by Dr. SUTTON is full of interest and instruction. We shall hasten to avail ourselves of it.

EDITORIAL CHANGE.

Dr. JOSEPH PARRISH, who for a number of years has edited the "New Jersey Medical Reporter" with excellent taste and judgment, and given it a high character among the Medical Journals of our country, has gone to Philadelphia to reside, and the Reporter is to be edited, in future, by Dr. G. M. BUTLER.

Record of Medical Science.

Hysterical Monomania.—By I. P. Coleman, M. D.—In October, 1852, I was called to Mary ——, a young Irish woman; aged 18, affected with what I supposed to be hysterical convulsions. The symptoms were strong muscular movements in both upper and lower extremities; violent contortions of the body, and twistings from side to side, head thrown back, face flushed, eyelids closed and tremulous, arms forcibly brought against the breast, and hands grasping at the throat, with a whining cry of distress. The attendance of two persons was required to keep her in bed.

The use of valerian and cathartics calmed the nervous tumult so satisfactorily that I made but three visits, and heard no more of the case until the following June. At that time rumor was busy upon the strange phenomena taking place at the house of her employer. I went thither, and obtained the following history, viz: the nervous irregularity had been comparatively quiet for some time after my former attendance, but in two or three months increased in frequency and violence, until the paroxysms were frightful, lasting two or three hours, with loss of consiousness, and disturbance of the affective faculties—patient extremely irritable on recovery, assailing the spectators with any missile at hand.—Complained of a knawing and tearing sensation in the stomach, and during the paroxysms the epigastric distention was so great as to excite uncharitable suspicions upon her reputation. Loss of appetite for ordinary food, but drank large quantities of milk when unobserved, as that gave most relief to the internal knawings, and quieted the commotion so frequently present; embonpoint well preserved, and complexion sanguine. The attacks were almost daily, and most frequently in the evening. The girl was fully of the opinion that she contained a living animal in the stomach. Early in June her case was stated to a celebrated doctress, who pronounced it to be either a snake or a tape-worm, and ordered fern-root to be taken in decoction. Apparently much against her inclination, she was induced to drink it, when a dreadful scene ensued. The "*basta*," as she termed it, was offended at the potion,

turned his back upon it in a rage, and made desperate lunges to escape through the œsophagus, and once blew sand into her mouth, which she ejected into a basin. The intergastric evolutions continued thirty-six hours, during which time violent spasms an maniacal ravings were almost constant; a calm then ensued, and there was tranquility for four or five days, at the end of which time a new phase was presented. Horrible sensations of strangulation, and violent, but ineffectual efforts to vomit came on, the hands were thrust furiously into the fauces, and fragments of dark tough skin forcibly extracted. The apparent agony during the efforts, was great, each paroxysm terminating with violent hysterical convulsions, turgid face, protruding eyes, throbbing carotids, and bursting jugulars, with seeming unconsciousness. Day after day such things were exhibited, but chiefly in the evening, and always in the presence of several attendants and spectators. The quality of the material changed from skin, apparently having scales, to a soft, solid substance, which when dry, resembled sweet potato in fracture and odor: also, a substance similar to wood having undergone eremacausis, and smelling like mushrooms; also, the green and ferruginous sand of the locality. The above substance to the amount of two or three pints, was forcibly thrown from the throat. then followed viscera, intestines in fragments, making five feet, a small heart, liver and trachea, all free from putrefaction or digestive erosion. At this stage of the proceedings, I first saw the patient, when she was beginning to produce bones, a few joints of small vertebræ resembling the caudal extremity of an eel, ribs, with processes for vertebral articulation, and osseous union to the sternum, with cartilaginous joint in the centre; also, several pieces of dorsal vertebræ, one having a lumbar and sacral termination, and some small bones resembling reptilian extremities. The vertebræ amounted to several inches, and were in sections of two, three, and four joints, united by some muscular and fibrous tissue, bearing the appearance of having been macerated or partially digested. As these specimens were produced at intervals of two or three days, and twelve or fourteen days had elapsed since the first exhibitions of skin, the latter productions evinced more and more the effect of maceration, until the last were nearly denuded. The absence of sound information in comparative anatomy and reptilian habitudes, together with the patient's history, and the testimony of the family,—unimpeachable in veracity, and incapable of collusion,—gave plausibility to opinions which were subsequently disproved. An Irish girl having been in the habit of drinking from a running stream at home, becomes sea-sick on the passage, feels an epigastric gnawing—one month after her arrival has hysterical convulsions, her first derangement in health; gastric irritation increases; reflexed movements in the voluntary muscles cruelly augmented; firm conviction of the existence of a living animal

within her, she takes the decoction of fern-root; convulsions aggravated; the animal dies; in six days she begins to eject skin, flesh, viscera, and bones, the first not acted on, the last very much so by the gastric fluids. A strong coincidence in chronological and physiological appearance. Although Ireland is destitute of reptiles in general, the good old Saint has suffered one variety of water lizard to remain, familiarly known as the man-keeper, which tradition says is frequently swallowed. When dissatisfied with his situation, and the unlucky wight also with his tenant, the latter has but to lie down with his mouth near a babbling stream and the reptile makes his exodus. The text books, after enumerating the parasites most common to man, have a stereotyped appendix of accidental occupants—larvæ of flies, triton palustris, lacesta aquatica, salamander, &c., and these are so modified by their new situation, as scarcely to be recognized.

The lacesta aquataca, like the tadpole, for a period after his escape from the ovum, is truly acquatic. He may possibly be swallowed in this stage of existence. Vitality, and the active principle of development in early life were supposed to be capable of resisting the digestive process. His small pulmonic, when compared with the systemic artery, proves him to require a very limited quantity of air for respiration, even less than the fishes. The law of adaptation acting so extensively on inferior animals might so have changed his habitudes as to enable him to abstract a sufficiency of air from the food and saliva. A constantly elevated temperature, and abundance of food, might have increased his development even to monstrosity. But the climax exposed the deception by producing four entire sections of lumbar and sacral vertebræ, also the skeleton and part of the carapace of the land turtle. The artfulness of these transactions adds another example to the catalogue of deceptions practiced by the hysterical, both upon themselves and their friends. I had been present during a number of the paroxysms, had seen her struggles while extracting the fragments of bone from the throat; the hemorrhage from the fauces, and the concluding convulsions, without detecting the trick, although suspecting the possibility from the first, and advising the family to be on their guard for deception. The amount of vertebræ thus exhibited is one foot in length. As there is much vagueness in the minds of physicians as to the kinds of parasites capable of existing in living animals, I give the remarks of Professor Leidy on the subject, who has kindly offered his opinion on this occasion. He says, "the bones consist of six vertebral columns of young pigeons, fragments of cervical vertebræ of the common fowl, and bones of the extremities and head, with fragments of the carapace of a turtle. The heart and intestines appear to be those of a bird. If the collection were vomited from the stomach, it of course must have been previously swallowed. Independent of the character of

the animals to which the different parts in the collection belonged, *no animal possessing an osseous skeleton* is capable of living within the *human stomach.* Serpents, lizards, toads, and salamanders, if swallowed alive, most probably would not remain in that condition a single hour; indeed, no animal whatever can live within the human alimentary canal except intestinal worms, and the larvæ of several genera of flies, as the besties or bot-fly, musca or flesh-fly, &c. There have been numerous instances recorded of the supposed existence of eels, serpents, frogs, toads, salamanders, snails, &c., in the human stomach, but upon examination they have invariably proved to be false."

Here is a case of reasoning monomania: the cause of the disease is obscure, as the functions of organic life appeared to well performed, but its character is unmistakable. The contortions described above, distention by flatus, globus hystericus, gastric pains referred to the side described as pathognomonic of hysteria. Predisposed to superstition and the marvelous, it is not singular that the idea of a living animal should be entertained. Esquirol says, "a weak understanding, but little or badly cultivated, pre-disposes to monomania." The absorbing idea in this case, was the reptile, a public declaration of its existence had been made, and an honorable obligation required its demonstration. Cunning, so vivid in the insane, devised the plan, and reason executed it as by inspiration. An ignorant girl, not apparently designing in other respects, conducts the scheme with the accuracy of a physiologist, for a time; thus the nervous agitation increases in force and frequency for several months—she takes medicine; the paroxysms are exalted; in thirty-six hours the commotion subsides; teguments are extracted from the throat, apparently flesh, viscera, bones, at first covered with tissue, gradually less and less so, until they are entirely denuded. Here the judgment failed; too great desire for notoriety exposed the trick, but not the manner of it. Quadruplicates of entire sacral vertebræ, with the skeleton of a turtle, were too much for the largest credulity.

That much of this material came from the stomach, I have no doubt, judging from personal observation and the testimony of witnesses of undoubted sincerity. The ability in some to regurgitate, is great, especially when the fauces are titilated. The absurdities of hysterical whims are proverbial. When delicately educated females drink their own urine, and vomit up to convey the impression that renal function is suspended, and the stomach doing vicarious service; or when the urethra and vagina are filled with pebbles to cheat the doctor, and the hoax not confessed until placed on the table, before a class of students, and tied, as for lithotomy, we are not astonished at any report of extravagance.

Esquirol, again, says, "when monomania does not become chronic it frequently terminates spontaneously, with or without

sensible crisis." The girl is now well, and unless the violent revulsions so frequently excited in the stomach at these exhibitions, modified some existing morbid condition of that organ, the cause of recovery is not apparent. Milk is no longer relished, and the appetite is good for ordinary food. As this case excited much interest in the country, and even among the savans of the city, it is offered to give publicity to the declaration of Prof. Leidy, "that no animal possessing an osseous skelcton, is capable of living within the human stomach."

PEMBERTON, *Jan.* 16, 1854.

DESCRIPTION OF EIGHT SKULLS OF FLATHEAD INDIANS FROM COLUMBIA RIVER.—By CARTER P. JOHNSON, M. D., Professor of Anatomy and Physiology, Richmond, Va.—In the justly celebrated "Crania Americana" of Dr. Samuel George Morton, there are described the measurements of eight skulls of the Flathead tribes of Columbia river. In the eighth section of the second part of "Schoolcraft's history, condition, and prospect of the Indian tribes of the United States," upon the "Physical type of the American Indians," also written by Dr. Morton, (the last labor of his life) seven additional skulls of these tribes are described. These fifteen skulls are all of which I have seen any accurate measurements, though others may have been published in papers to which I have not had access. Any thing which may add to the slender stock of accurate statistical information which we possess with regard to these tribes will be interesting to the public and particularly to the medical men of America.

The skulls which I propose to describe were sent to me some time since by Dr. Charles H. Smith, U. S. A., and were taken by him from an Indian mound on the banks of the Columbia river in Oregon. Of the exact location of the mound he has not informed me, and I am therefore not able to state to which of the many Indian tribes inhabiting the banks of the Columbia river these skulls belonged.

The skulls are all in a good state of preservation, with one exception, they are all adult skulls, none however presenting indications of great age. They may therefore be taken as good types of the class to which they belong. The specimen No. 8 in the catalogue (vid. table), is not fully developed. The posterior molar teeth have not made their appearance at all, and one of the second molars has but just presented itself beyond the margin of the alveolar process; the remaining three second molars are fully out. In giving the mean of the measurements of these skulls this one will be omitted.

The appearance of these skulls is very singular, and with our

idea of physical beauty, we find it difficult to credit the statement that such a conformation is actually regarded as a mark of beauty by those tribes among whom it is found, and that it is so highly valued that their slaves, who are for the most part derived from the adjacent tribes, are not allowed to imitate it. The most prominent deviations from the usual conformation of the skull are the great flattening of the frontal and occipital bones, and the consequent diminution of the antero-posterior diameter and the increase of the lateral diameter of the skull. The vertex is pushed backwards and the vertical diameter diminished. The basal aspect of the skull is very much altered; the face, retaining its usual width, seems very much disproportioned to the cranium, the lateral enlargement of which is here strikingly seen. These alterations exist of course in different degrees, in different specimens according to the degree and the duration of the compressing force employed, as will be evident from an examination of the table of measurements. Owing to the difficulty of applying the compressing force uniformly, I presume, very great distortion is sometimes produced. All of the skulls in my possession are strikingly nonsymmetrical, but two of them, Nos. 6 and 7 of the catalogue, are particularly distorted, and in both the flattening has been produced principally upon the left side, leaving the capacity of the right side of the cranium very much the greater. In two of the eight skulls which I have, the frontal suture remains entirely perfect from the sagittal to the fronto-nasal suture. Can this be in any manner the result of the compression of the frontal bones? In seven of the eight, "ossa wormiana" are found, some of them very large.

According to Dr. Morton,* this custom of flattening the head obtains among many tribes, among which are the Klickatats, Kalapooyahs, and Multnomahs of the Wallamet river and its vicinity; and the Chinouks, Clatsaps, Klatstonis, Cowalitsks, Kathlamets, Killemoohs and Chelakis of the lower Columbia and its vicinity. It may not be interesting to state the mode in which this curious deformity is produced by these numerous tribes. It will enable us to appreciate their moral sensibilities to some extent.

"The mode by which the flattening is effected," says Mr. Townsend, "varies considerably with the different tribes. The Wallamet Indians place the infant, soon after birth, upon a board, to the edges of which are attached little loops of hempen cord or leather, and other similar cords are passed in front and back, in a zigzag manner, through these loops, enclosing the child and binding it firmly down. To the upper edge of this board, in which is a depression to receive the back part of the head, another smaller one is attached by hinges of leather, and made to lie obliquely upon

* Crania Americana. p. 203.

the forehead; the force of the pressure being regulated by several strings attached to its edge which are passed through holes in the board upon which the infant is lying, and secured there."*

"The mode of the Chinouks, and others near the sea, differs widely from that of the upper Indians, and appears somewhat less barbarous and cruel, a sort of cradle is formed by excavating a pine log to the depth of eight or ten inches. The child is placed in it on a bed of little grass mats and bound down in the manner above described. A little box of tightly plaited or woven grass is then applied to the forehead and secured by a cord to the loops at the side. The infant is thus suffered to remain from four to eight months or until the sutures of the skull have in some measure united, and the bone become solid and firm. It is seldom or never taken from the cradle, except in case of severe illness, until the flattening process is completed."

It is not wonderful that the result of this process, to which these unfortunate babies are subjected is "often ulceration of the scalp and perhaps, not unfrequently, death itself." Three of the skulls in my possession present distinct evidences of ulceration of the frontal bones themselves, and one of them, the youngest, presents upon the frontal bone and the adjacent part of the parietals, that honeycomb appearance so familiar to the pathologist as the result of syphilitic disease.

Upon the Diagnosis and Treatment of Croup.—By Dr. Hirtz.—Before the labors of modern physicians had assigned to croup its true anatomical characteristics and nosological rank; when, yet confounded among the numerous family of laryngites, it formed a part of their history, it would have been very easy, and consequently quite uninteresting, to furnish cases of cure. Every physician then counted his fortunate cases by the dozen, and every family could cite cases of children attacked by croup and cured at least ten times.

Now, on the contrary, that the name of the true croup is only applicable to pseudo-membranous laryngitis, and that the progress of science has invested its diagnosis with such precision that it is impossible for an experienced physician to mistake it from the very commencement, croup has become a comparatively rare disease, and its cure an exception occurring at long intervals.

On the other hand, the scientific views of the progress and diagnosis of true croup are not yet sufficiently vulgarized among physicians as to render confusion impossible. It still to often happens, that it is mistaken in its insidious approach, and lulls the family

* Townsend, Journey to the Columbia River, p. 175.

and physician into a false security, and then shows itself with all its terrors in a few hours afterwards. In other cases, stridulaus laryngitis is taken for true croup, and draws down upon the unhappy child the whole superfluous arsenal of therapeutics, and excites the unnecessary fears of parents.

Dr. Hirtz, after these just reflections, reports two cases of pseudo-membranous croup in two sisters, which terminated in recovery. We shall reproduce only the last.

Case.—Marie R. ——, aged 4 years, of good constitution but temporarily enfeeble by bilious diarrhœa, has been unwell for several days. Every morning she feels fatigued, complains of pain in deglutition; she is often hoarse but does not cough. The 25th, (the same day on which her younger sister was suffering from croup at its greatest intensity,) Marie appeared more unwell; she was dispirited and prostrated, more hoarse, and feverish. Dr. Hirtz was seized with a sinister presentiment. Notwithstanding the cries of the child, he examined the throat, and discovered that the soft palate, uvula, and pharynx were red and inflamed, and that the tonsils were already covered by a yellowish-white pseudo-membranous exsudation, which was quite thick, and occupied almost the whole of the surface of each tonsil. There were present, in fact, all the signs of croupal angina. Dr. Hirtz immediately prepared to perform cauterization, and effected this operation completely and satisfactorily in spite of the child's obstinate resistence.

The following night was tranquil; no unfavorable symptom supervened, and on the next morning, Dr. Hirtz hoped that the disease was aborted. This hope was realized; an abundant mucous secretion was observed in the fauces, deglutition became easy, and the pseudo-membranes, though they continued visible for two days, finally disappeared in copious discharges of mucous. The diptheritis was jugulated.

This case proves how false and dangerous are the ideas which still prevail in society, and even among some physicians, in regard to the incipient symptoms of croup. It is stridulous angina that awakens all the apprehensions of parents; it is false croup which calls forth all the solicitude of physicians; it is against this that every mother keeps that precious bottle of hive-syrup which never leaves her.

If there happens to be membranous croup, true croup, on the contrary, there is every chance that the physician is not called until the second or third day, that is to say, when grave symptoms announce that the disease has extended to the larynx.

In these two cases, it required, in the first, not only all the vigilance, but all the forsight of the maternal heart to awake suspicion, and in the second, the existence of croup in the family to cause that disease to be thought of while it was yet time. It will be noticed that the children were running about and playing when

the pseudo-membrane was already formed at the entrance of the pharynx.

We cannot therefore too often caution mothers against that dangerous error, which, by mistaking false croup for true croup, causes children to be tormented by violent and superfluous physic, and, which is worse, leads to deception in regard to one of the cruelest and most insidious of diseases.

It is desirable, I say, that it should be generally known, that when a child in full health is suddenly seized, during sleep, with cough and hoarseness, with oppressed breathing and rattling, there is no need to be frightened and to give powerful medicine; for this is not true croup. That if, on the contrary, after a febrile attack, a child has a cold in the head, sore-throat, difficulty of deglutition, and slight hoarseness, the fauces should be examined, or, better still, a physician summoned at once, for nineteen times in twenty true croup commences in this way.

I say nineteen times in twenty, for it is not to be forgotten that croup sometimes commences in the larynx and even in the bronchi, appearing afterwards in the pharynx. I reported a case of this sort twelve years ago; M. Nonat has seen another, and M. Barth a third. But it was on account of their rarity that these facts were published.

When croup attacks one child of a family, the remaining children should be watched with redoubled vigilance; for, whether it be contagious or endemic, the fact is certain that the disease often attacks many members of the same family.

A few words on the treatment of croup. The distinguished physicians who, at the commencement of this century, threw so much light on the nature of croup, attended too exclusively, perhaps, to the mechanical action of the false membrane as a cause of asphyxia. Hence the paramount indication of expelling this foreign body at all hazards, and consequently the use of emetic, which word has become almost the correlative of the word croup. In society especially, this mode of treatment has assumed an exclusive character, and persons believe themselves sufficiently protected if the arsenal of domestic medicines contains tartar emetic.

This doctrine applied in an absolute manner, is false in theory, and dangerous in practice; it is false in theory, because asphyxia may result from many causes besides obstruction of the glottis; it may be explained either by the extension of inflammation to the submucous and muscular tissues of the larynx, producing paralysis of the obturator muscles of the glottis, or by the propagation of diptheritis quite into the bronchi. This is why we often see children die after the expulsion of false membrane, and others recover without this being eliminated. This is why we often observe at the autopsy of children who have died in the last period of croupal asphyxia, that the laryngeal office is sufficiently open for the pur-

poses of respiration. And lastly, this is why tracheotomy is so often unavailing. This doctrine is dangerous in practice, because the reiterated and inopportune employment of emetics is not only useless, but often productive of dangerous disorders.

How can tartar emetic remove a membrane which is scarcely formed and adheres firmly to a surface upon which all moral secretions is checked by a specific inflammation? If it is persevered in, the efforts caused by it increase the cerebral and pulmonary congestion; the stomach is finally worn out and no longer responds to the remedy. The physician returns to the charge with sulphates of copper or zinc, and the child sometimes dies, as Dr. Boeekel has observed, from the intoxication produced by these poisons, rather than by croupal asphyxia. Tartarized antimony given judiciously, however, is a grand resource; but it must be employed with method, and, above all, opportunely, the favorable moment being calmly awaited. This moment occurs when the specific inflammation, modified or checked by other remedies, again permits some secretion of mucus, which separates and detaches the false membranes.

Dr. Hirtz believes that the most rational method of treatment consists in modifying in the first place, the specific inflammation by cauterization; and in combatting it by calomel combined with a few leaches. When this result is obtained, we should act on the mucous secretion by kermes mineral and the golden sulphuret of antimony, and lastly, upon the expectoration by two agents which then become invaluable; the first is tartar emetic, administered discrimination and at proper intervals, and the second is muriate of ammonia (formula of Richter), a true incisive, according to the old momenclature, and a powerful expectorant when administered perseveringly.—*Revue Médico-Chururgicale de M. Malgaigne*, from *Gaz. Méd. de Strasbourg.*

General Pathology and Treatment of Dyspepsia.—By Prof. J. H. Bennett, M. D., of the University of Edinburgh. By Dyspepsia is generally understood all those functional derangements of the stomach which are primary in their origin, that is, not dependent upon, nor symptomatic of, inflammation or other disease in the economy. Such a disordered condition is exceedingly common, and often constitutes the despair of the physician, arising as it frequently does, from causes which are often obscure, or if discovered, are beyond his control. This will become apparent by considering, in the first place, those circumstances which require to be united to secure a healthy digestion. These are:—1st. A proper quantity and quality of the ingesta. 2d. Sufficient mastication and insalivation. 3d. Active contractility in the muscular coat of the stomach. 4th. Proper quantity and quality of the gas-

tric, biliary, and pancreatic fluids. 5th. A consecutive and harmonious action of the intestinal canal. Dyspepsia, or indigestion may be produced by any cause which occasions derangement of one or more of these conditions; and hence why so many different circumstances may produce somewhat similar symptoms, and why so many different remedies have been found effectual in various cases. Notwithstanding that you will frequently meet with instances which baffle all preconceived rules, there can be no doubt that a careful attention to the essential physiological conditions above enumerated, will in the great majority of cases, conduct you to a successful rational treatment. Thus,—

1st. Of all the causes of dyspepsia, excesses in eating and drinking are the most common. An over-distended stomach, or too rich a meal, not unfrequently induces a feeling of weight or fullness in the epigastrium, nausea and eructation of acid, bilious or gaseous matters, with a loaded tongue, headache, and other general symptoms. This is acute dyspepsia, or the *embarras gastrique* of the French. Occasionally, there is more or less vomiting of bilious matter, when the attack is vulgarly called a *bilious seizure.* If called in to such a case, immediately on its occurrence, and before the ingesta have left the stomach, as determined by the sense of load at the epigastrium, an emetic should be given; but if vomiting be present, it should be assisted by warm diluents. As soon as the stomach is quieted, or, if you have been called in at a late period, when the ingesta have passed into the intestines, a purgative pill should be administered, consisting of four grains of calomel, with four of compound extract of colocynth, followed in a few hours by a purgative draught of salts and senna. If necessary also an enema may be given. The purging, with a day or two's confinement to farinaceous food, will generally get rid of such an attack; but their frequent repetition leads to the chronic form of dyspepsia, when careful regulation of the diet with exercise, must constitute the chief treatment. Hence the advantage of what is called "change of air," and much of the benefit which is derived from watering-places. Chronic dyspepsia, however, is far more commonly caused by excess of spi.ituous and vinous drinks, than by eating, when abandonment of the evil habit is a *sine qua non* in the treatment. Tea drinkers are very liable to the disease, and its frequency among female servants is probably owing to this cause.

2d. It may frequently be noticed, that those who have acquired the habit of eating rapidly are more or less dyspeptic. I knew a journeyman printer who was much tormented with indigestion, but who was cured by changing his residence. The cause of this was for some time a mystery, but on again changing his house the disease returned, although no apparent cause could be discovered. I ascertained, however, that it depended not on the locality *per se*, but on its distance from the printing-house. When far off he ate

his dinner with his family rapidly, having only just time enough to walk home and back within the hour. When he lived near, the time otherwise spent in walking was occupied in eating, or in cheerful converse with his wife and family. Since I made this observation, it has often occurred to me that the distant residences of artisans from their place of employment may be the occasional cause of the dyspeptic symptoms they frequently possess. With regard to the exact object of the saliva in the process of digestion, whether it be to convert the farinaceous compounds of the food into glucose, or by its viscidity, to mix up air with the portions swallowed, is not positively determined; but its necessity for the digestion of man is shown by cases where the under lip has been lost by accident or disease, and where salivary fistula has formed, in which dyspepsia is generally present, and in which the disordered digestion has been cured by operations that, by restoring the parts to their normal condition, prevent the escape of saliva. Again, persons habituated to the dirty habit of spitting, are for the most part dyspeptic; and it has been asserted that the pale countenances of the inhabitants of the United States and the leanness of their persons are owing to this cause. In all cases where dyspepsia can be traced to this source, the treatment must be obvious.

3d. The contractile movements of the stomach, which, by kneading the ingesta, and keeping them in constant motion, secures an intimate admixture with the gastric juice and the rapid transference to the duodenum of such portions of it as are transformed into chyme, are evidently of immense importance to a proper performance of digestion. The experiments of physiologists have shown that digestion in gastric juice out of the stomach is much slower than in it, and that section of the pneumogastris nerves, by arresting the contractile movements, only permits the circumference of the mass in contact with the secreting surface to be digested.—These facts at once explain the well-known influence of mental emotions upon the stomach. Contentment and hope are as favorable, as dissatisfaction and despondency are opposed to good digestion. Nothing is more common than dyspepsia among literary men who overtask the mental faculties; among young persons of very excitable minds; and among individuals of a melancholy temperament, hypochondriacs, etc., etc. It is in such cases that cheerful society, active and appropriate occupations, change of scene, removal from mercantile or literary employments, different trains of thought, and so on, are beneficial. Hence also many of the good effects of travel, visiting watering-places, &c., &c.

4th. Our knowledge with regard to the offices performed by the gastric, biliary and pancreatic juices in digestion has of late years been much advanced. Thus the gastric juice more especially operates on the albuminous, and the pancreatic juice on the fatty compounds of the food. The function of the bile is perhaps more

obscure, although it probably acts as a means of precipitating or separating some of the excretory matters from chyme, and so facilitates assimilation of the nutritive portions. Digestion may be deranged by all those causes which too much increase or diminish the secretion of these three fluids. Thus excess of acidity in the stomach is one of the most common causes of dyspepsia, producing that form of it which accompanies scrofulous and tubercular diseases. It may be in such excess as to neutralize the alkaline action of the pancreatic juice, and render it difficult or impossible to emulsionize fatty matters. In such cases, alkalies, with bitter tonics, and the direct introduction of animal oils in excess, are indicated. On the other hand, the gastric juice may be diminished in quantity, as frequently occurs in persons who suddenly overtask the powers of the stomach at feasts, or in old persons with feeble digestion. The sense of load after eating is generally indicative of slow digestion from this cause. In acute cases, a stimulant rouses the stomach to increased action, and hence the moderate use of drams and generous wines after dinner is occasionally useful. In old persons the sense of load and feebleness is best removed by giving up tea, and drinking at night a little weak brandy and water. In chronic cases, acids are indicated, especially muriatic acid. The *Tr. Ferri co.* of the Pharmacopœia is a useful preparation in chlorotic females. We have no distinct means, as far as I am aware, of rousing the pancreas into into action, and yet many cases are on record in which fatty matters have passed undigested through the alimentary canal in consequence of obstruction to the pancreatic duct. In such cases, and all those in which fatty matters are difficult to digest, alkalies, especially the liquor potassæ with vegetable tonics, are indicated. When the bile is deficient, constipation and dyspepsia are usual results, and are to be relieved by gentle mercurial purgatives, with extract of taraxacum, and by remedies, such as rhubarb and especially the compound rhubarb pill, which, by acting on the duodenum, also favor the flow of bile into the upper part of the alimentary canal. Dr. Clay, of Manchester, has recommended in such cases the administration of ox-gall, a remedy, which, although not extensively given, is evidently rational, and calculated by its purgative action to be highly serviceable. Excess of bile, on the other hand, ought to be treated by drastic purgatives, diuretics and diaphoretics, according to circumstances, to cause excess of excretion. Exercise should also be insisted on to call the lungs into action, and thus relieve the liver in its office of separating hydro-carbon.

5. A derangement of the consecutive and harmonious action of the alimentary canal is another frequent cause of dyspepsia, for it is as necessary that those portions of the food which are not assimilable should be removed out of the economy, as that the nutri-

tive materials should be absorbed. Hence whatever impedes the contractility of the intestinal canal, whatever alters the structure of its mucous membrane, or whatever mechanically obstructs its calibre, may always be observed to induce dyspeptic symptoms. The removal of these various conditions, whether by stimulating the nervous centres, by appropriate diet, or by purgatives and astringents, as they may be required, need not be more particularly dwelt upon.

In many cases of dyspepsia, two or more of these causes may be combined, so as to render the indications for treatment complex and apparently contradictory. In other cases, one or more causes may exist, although from the indications presented they cannot be determined, when our treatment must always be more or less vague and unsatisfactory. Lastly there are a few instances where dyspepsia can only be explained by *idiosyncrasy*, in which we find this or that particular article of diet to derange the digestive functions, and in which avoidance of the offending cause is the only plan that is attended with success.—*Monthly Journal.*

FOREIGN BODY IN THE AIR PASSAGES—RETAINED FIFTEEN MONTHS. —By G. R. HENRY, M. D., Burlington, Iowa.—Sept. 22, 1852, Mr. J. L., of Yellow Springs in this county, brought to me his child three years old, who had about two weeks previously suffered a water-melon seed to pass into the larynx; I was unable to detect the presence of any foreign substance, and consequently declined performing the operation of tracheotomy, for which purpose the child had been brought to me. The child was suffering from inflammation of the left lung, and I felt satisfied from repeated examinations that if the seed was yet in the passages, that it was so impacted into one of the smaller bronchial tubes of the left lung that an operation would be unavailing. Giving this as my opinion, the father took the child home, to the charge of Dr. F. whose patient he was, and under whose care she rapidly recovered from the attack of pneumonia and regained her usual health, but would occasionally be troubled with severe attacks of coughing. I have not seen this little patient since she was first brought to me. But Mr. L. called a few days ago at my office, and said that on the 13th of December 1853, during a violent attack of coughing she had thrown up the water-melon seed which had been forced into the trachea fifteen months previously; the seed being scarcely altered from its original condition; since which time the child has been free from cough.

This case shows the remarkable power that nature possesses, of adapting herself to the exigencies of different situations, and

teaches us that persons beyond the reach of art may yet be cured by the *vis medicotrix naturæ.*

Had the child been brought to me immediately after the accident occurred, I would have operated with much hope of success, for then the foreign body was loose, and as her father expressed it, "would flip" when she breathed, but when I saw her there was no *positive* evidence that the seed had been coughed up, and there was certainly great danger of increasing the inflammation which had already supervened.—*Iowa Med. Journal.*

Tumor of the Breast—Diagnostic value of the Discharge from the Nipple.—Dr. Richard reports, in the Revue Medico-Chirurgicale, six cases of Tumors of the Breast, in which he observed a discharge from the nipple. This discharge varied very much in character, from the appearance of pure blood to that of clear water. It was very abundant in certain cases, flowing out spontaneously; whilst in others there was only an oozing, or a drop or two would escape, on pressure being made. In spite of this diversity of aspect, the liquid could be considered as an habitual lactiform secretion, mixed or not, with blood. Another important result was, that all the tumors had the same nature, which was partial hypertrophy of the mammary gland, but the form and degree of the malady varied. In cases of long standing, where there was softening of the gland, the blood was found in a kind of cyst, in those more recent, the lacteous secretion predominated. This discharge appears to be peculiar to simple hypertrophy of the mammary gland; for, in twenty-seven cases of cancer of the breast, confirmed by examination with the microscope, not one showed a discharge from the nipple. The author concludes, from his observations, that the discharge from the nipple is a frequent symptom of partial hypertrophy of the mammary gland, and that its existence is a favorable prognostic in tumors of the breast.—*Charleston Journal.*

New York Medical and Surgical Society.—Extracts from the Minutes.—By Charles M. Allin, M. D., Secretary.—Dr. Van Buren related a case of congenital syphilis, presenting unusual tertiary symptoms. The patient was a child, fourteen months old, not yet weaned, and well nourished. There was a large periosteal tumor in the right temporal region, and another upon the left ulna; painless, indolent swelling of both testicles; great muscular weakness, and entire inability to support the weight of the body on the lower extremities. These symptoms had commenced three

months before. The child had been born perfectly well; and when about three weeks old, broke out with papular eruption, with successive pustules, and with ulcers at the angles of the eyes, mouth, and nose, preceded by snuffling and inability to nurse.

These symptoms were treated by another physician, with grey powders; and when three months old the child was apparently well. He continued well until the tenth month, when the present symptoms appeared, as already stated. The parents of the child have been married fifteen years. The father is a drinking man; confesses to have had primary symptoms before marriage, and has suffered much, and frequently from rheumatism and eruptions of the skin since, and has the latter at present. The mother is not aware that she ever had primary symptoms, and has had no recognized secondaries, except nocturnal rheumatic pains, from which she still suffers.

They have had four children before the present one, and all of them had well-marked eruptions and muscular weakness. They all died, at ages varying from three to fifteen months. This patient has been and is taking iodide of potassium, and the symptoms are all improving.—*N. Y. Med. Times.*

CHLORATE OF POTASH IN CROUP.—The following facts, as given by Dr. Sankey, corroborate the views laid down by Dr. Budd in his paper on Croup: a child aged thirteen months, with croup and bronchitis, was treated with blisters, salines, ipecac, &c., without benefit, when he was put upon the use of *chlorate of potash;* and although the child was much reduced, the circulation languid, the blood not properly oxygenized, yet in a short time the croup and bronchitis disappeared, and the child was restored to its usual good health.

Another child, æt. three years, with croup, had been treated with leeches, calomel and ipecac, without much benefit; he was put upon the *chlorate of potash*, and soon his breathing became easy, and his countenance lost its anxious and livid hue. It recovered as in the first case. The cholorate of potash is supposed to be in part decomposed, in these cases, and thus a large portion of its oxygen is given to the blood, for the absence of which the child perishes in attacks of croup.—*N. O. Med. Journal.*

The Western Journal
OF
MEDICINE AND SURGERY.

APRIL, 1854. NEW SERIES. VOL. I.—No. 4.

ART. I.—ANALYSIS OF TWENTY-ONE CASES OF ARTICULAR RHEUMATISM.

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I propose in this paper to give, as concisely as possible, the results of an analysis of twenty-one cases of articular rheumatism. Of this number I have histories recorded either at the bedside, or while the cases were under observation. The number is not large. It would have been considerably larger had I recorded the histories of all the cases that have fallen under my observation. The disease, however, is not of very frequent occurrence in this city, In proof of this statement, on referring to the register of the Buffalo Hospital of the Sisters of Charity, not a single case was admitted into that Institution from January to November, 1849, the inmates in the medical wards, during that period, averaging from thirty to forty daily. Nor was even a single case admitted from Dec. 1849, to May, 1850. The same is true of the period from October, 1850, to October, 1851; the daily average number of inmates being much greater than before.

The unfrequency of the disease in this region is interesting, considered in connection with the fact that the population of Buffalo embraces a very large proportion of young persons, and that the climate of this place is characterized by sudden and extreme chan-

ges of temperature. As respects climate, sudden alterations of temperature, and high winds form the most prominent features. Without being able to state the average dew point, the atmosphere is remarkably dry, notwithstanding its proximity to the Lake.

Of the twenty-one cases which I shall proceed to analyze, in seventeen the disease was, moderately or otherwise, acute, and in the remaining four cases, sub-acute.

Age.—The ages ascertained, respectively, were as follows:—1 of 15, 1 of 16, 1 of 18, 2 of 21, 2 of 22, 1 of 23, 1 of 24, 1 of 26, 1 of 28, 3 of 30, 2 of 32, 1 of 33, 1 of 40; in all, eighteen cases. Mean age, 25⅛ years,

Season.—The cases occurred in the following months:—Jan., 4 cases; Feb., 3 cases; March, 4 cases; April, 2 cases; May, 1 case; June, 1 case; August, 1 case; Oct., 3 cases; Nov., 1 case; Dec., 1 case; no cases in July or September.

Previous Health.—Of ten cases in which the facts with respect to the occurrence of previous attacks of rheumatism were ascertained, in six the patients had had the disease. One patient had had two previous attacks, and one had had several; the remaining eight had previously had the disease but once. One patient had been subject to frequent attacks of neuralgia; one had suffered long and much from spinal irritation, and two had had intermittent fever. In one instance, the disease followed close on the steps of intermittent fever; and in one, dysentery had shortly preceded it.

Mode of Attack.—The invasion was sudden in nine cases, and in four of these the attack took place in the night time. In seven cases the disease was gradually developed.

Sex.—Eighteen were males, and three were females; the greater relative liability of the male sex to rheumatism being thus illustrated.

Parts affected in combination and succession, Local symptoms.—Under this head the first points of inquiry are:—Of the different joints of the body, which are most liable to be affected in rheumatism; and in what order do the joints severally rank as respects this liability? The facts bearing on these points of inqui-

ry are as follows;—In the twenty-one cases, the knee, or knees, were affected in seventeen; the ankle joint in fifteen; the wrist in fourteen; the shoulder in eleven; the hip in nine; the elbow in eight; the phalangeal joints of the hand in six; the phalangeal joints of the foot in two, and the maxillary in one. The ligaments of the cervical vertebræ were affected in two cases; of the back in five cases; of the dorsum of the hand in one case, and of the foot in two cases.

A second point of inquiry is:—What joints were simultaneously affected at the time of the attack? Both knees were affected in four cases; both ankles in two cases. The following combinations were each (with one exception) exemplified in a single case: Both wrists; hips, knees, ankles and wrists; ankles and toes of both feet; left hip and left knee; elbow and shoulder joints; both knees and both ankles; right knee and right ankle; left hip, knee and ankle; both shoulders; left ankle and left wrist (two cases); both ankles, knees and hips.

An examination of the combinations of joints simultaneously affected is interesting with reference to the *law of parallelism*. Rheumatism is one of the *symmetrical* diseases. Common observation shows that corresponding parts on the two sides of the body are apt to be attacked at the same time. Does this occur sufficiently often, or, in other words, are the exceptions so unfrequent, that it may with propriety be regarded as a law of the disease? This question has bearings beyond simply the natural history of rheumatism. The existence of such a law is of importance in its relations to the pathology of the disease. It shows that the local manifestations of rheumatism involve, in the first place, an internal determining morbid condition; and that parts are affected, mainly or solely, in consequence of this ulterior condition, irrespective of external local causes. And, in the second place, it certainly favors the doctrine that this internal morbid condition, thus determining the situation of the local rheumatic inflammations, pertains to the blood. To suppose that there is a kind of elective affinity between the structures attacked and a morbid matter brought to them by the blood, is to account most rationally for the fact that a disease affects similarly corresponding parts of

the two symmetrical halves of the body. And in support of this hypothesis, it may undoubtedly be affirmed that most symmetrical affections, irrespective of the law of parallelism, appear to be blood diseases. It will at once occur to the mind of the reader that were we authorized to say that a well-marked law of parallelism sufficiently establishes the blood pathology of a disease, it may be applied to settle the question of the pathological character of some affections in which other evidence of their dependence on a morbid condition of the blood is wanting.

Reverting to the combinations already given, of joints simultaneously affected, in thirteen of the eighteen instances the same joints on the two sides of the body are associated. Of the five instances in which this was not the fact, the left ankle and wrist were here simultaneously affected in two; and in the remaining three instances the knee and ankle, and the hip and knee on one side were affected in combination. These are not properly exceptions to the law of parallelism; they are simply negative instances in this point of view. True, exceptions would be instances in which different joints on the two sides of the body are affected in combination. There are no such instances in the combinations already given, and we may, therefore, conclude that, thus far in the analysis, the law referred to is sustained by the majority of the instances in which different joints were attacked, simultaneously, and no positive exceptions are found. It may be remarked here, that in examining with reference to the point under analysis, it will be fair to consider instances in which corresponding joints of the upper and lower extremity are affected in combination, as certainly not deviating from, if, indeed, they are not exemplifications of a law of parallelism. The knee and elbow, the wrist and ankles, the hip and shoulders are analogues; and were, for example, the wrist on one side, and the ankle on the other side to be affected in combination, it would not form an exception to the rule of symmetry. This consideration has no reference to the facts already presented, but it may, perhaps, be applicable to those which are now to follow.

What joints were affected in combination subsequently to the date of the attack? The following are the enumerations devel-

oped by an examination of the histories with reference to the inquiry:

Parallel Joints Affected.

Both knees,	4	cases.
Both wrists,	5	"
Both shoulders,	4	"
Both elbows,	4	"
Both hips,	1	"
Both ankles,	3	"
Great toes,	1	"
Both knees and ankles,	1	"
Elbows and wrists,	2	"
Shoulders, elbows and hips,	1	"
Total,	25	

Single Joints Affected.

One knee,	3	cases.
One wrist,	14	"
One shoulder,	6	"
One elbow,	3	"
One hip,	3	"
One ankle,	3	"
Total,	33	

Different Joints Affected on same Side, and Joints not corresponding on the two Sides.

Right wrist, elbow and shoulder,	1	case.
Wrist and finger joints,	1	"
Finger joints of one hand,	7	"
Left ankle and right hip,	1	"
All joints of right arm and mostly all joints of left arm,	1	"
Right hip, knee and ankle,	1	"
Left wrist and left ankle,	1	"
Total,	13	

The foregoing results show the number of instances in which a single joint was affected to be in the majority; next in the order

of frequency, parallel joints were affected; and in a much less number of instances different joints on the same side, or not corresponding on the two sides, were attacked in combination.

Directing attention to the evidence for or against the law of parallelism, we find in the first class of combinations the positive exemplifications of this law. In the second division, viz., in which single joints were affected, the evidence is, as has been seen, negative. We are to look in the third class for the exceptions to the law. And the exceptions are instances in which different joints on the two sides of the body, not analogues, were affected in combination. There is but one instance of that character. In that instance the left ankle and the right hip were simultaneously affected. In no instance were joints different, but analogues, affected in combination. The consideration, therefore, with reference to the latter point, which was premised, is not applicable to the facts developed by this analysis. The other instances in this division, viz: those in which different joints on the same side were affected in combination, are to be regarded in the same light as those in which single joints were affected. They are negative as respects their bearing on the law of parallelism. *In only a single instance, in all the combinations of joints simultaneously affected, both at the time of the attack, and subsequently, during the progress of the disease, in the twenty-one cases, was there a positive confliction with the law of parallelism.*

To present the facts in another aspect, the whole number of instances in which the joints were affected, in the twenty-one cases, either singly, or in the different complications, is eighty-eight. So far as the results of this analysis go, therefore, the ratio of exceptions to the law of parallelism in rheumatism, is as 1 to 88.

It is interesting to notice that certain joints are specially disposed to be affected in combination on the two sides, *e. g.* the knee, while other joints are apt to be affected singly, *e. g.* the wrist; and the joint most apt to be affected singly, viz: the wrist, is one of the least liable to be affected double.

With respect to the local symptoms, in no instance were swelling or redness present when the hip and shoulders were affected. These symptoms were generally, but not uniformly present when the knee, ankle, wrist and finger joints were the seat of the mani-

festations of the disease. Increased heat was sometimes present when the hip and shoulder joints were affected.

Heart Complications.—In fifteen cases the existence, or non-existence of heart complications, was determined. Of these fifteen cases, the heart was affected in six, and unaffected in nine. The evidences and history of heart affection in the six cases, respectively, are as follows:

Case I.—On the fifth day after my attendance commenced, and the eighth day from the date of the attack, a soft, systolic endocardiel murmur was observed. The action of the heart was not increased. The febrile movement had subsided. Some pain was felt in and below the precordia, and there was tenderness on pressure in the same situations. The patient was convalescent on the seventh day from the date of my attendance, and slowly recovered. The disease occurred in Maoch, 1852. During the subsequent winter he had a second attack of rheumatism, having never had the disease before the preceding March. He was not under my observation during the second attack. He recovered from it, but the state of the heart, and of the general health, is not known. Age of patient, 15 years.

Case II.—On the seventh day from the date of the attack, a loud and somewhat rough systolic endocardial murmur existed. At this date the patient came under my charge, and the previous existence, or non-existence, of the murmur had not been ascertained. The murmur was heard at, and above the base of the heart, not at the apex. There were no signs of enlargement. Patient had had an attack of rheumatism ten years before. Age of patient, 16 years. The case was pretty severe and protracted.

Case III.—Patient came under observation on the sixth day after the attack, and on the ninth day a soft, systolic, endocardial murmur was observed. The impulse was normal. The murmur diminished and disappeared after convalescence was established. He had slight pain in precordia on deep inspiration. The case was mild, and brief in duration. Subsequent history of patient unknown. Had not had the disease before. Age 22 years.

Case IV.—On admission into Hospital about a week after the date of the attack, he had a soft, systolic, endocardial murmur,

low in pitch, maximum of sound at the apex, the heart's impulse somewhat increased. There was pain in precordia on deep inspiration, and on acts of coughing. The abnormal impulse ceased, but the murmur continued till his discharge. The case was mild and brief. It does not appear that he had had the disease before. Age, 17 years.

Case V.—Admitted on the ninth day of the disease, and on the twelfth day was observed a systolic endocardial murmur, the maximum between the second and third ribs, high in pitch. The area of flatness of percussion sound in precordia was increased, and there was no apex impulse. The disease was mild. Patient was convalescent on the twenty-third day. History after discharge unknown. Age, 32 years.

Case VI.—On the sixth day from the date of the attack, a soft, systolic murmur was observed, the maximum between second and third ribs. Action of heart not increased. No precordial pain. The disease was mild. Patient was discharged on the eleventh day from the date of the attack. Endocardial murmur at the time of discharge faint. Subsequent history not known. Age, 26.

In the foregoing six cases, as will be noticed, the evidences of endocartis alone, were present in five, and of endo and pericarditis in but one.

The rheumatism was mild in all cases but one, and in the latter tolerably severe.

The endocardial murmur was produced at the mitral orifice in one case, and at the aortic orifice in four cases.

Precordial pain existed in four cases; it did not exist in one case, and in one case nothing is noted on this point. In no instance was the precordial pain severe, or prominent as a symptom.

In each case convalescence took place without leaving any consciousness, on the part of the patient, of a heart affection. In one instance the endocardial murmur disappeared, in one instance it became faint, and in the other cases it persisted without any notable change.

The maximum of the duration of the rheumatism in the cases complicated with heart affection, was twenty-six days. The next longest duration was twenty-three days; the next, twenty-one

days, and the next, twelve days. The minimum of duration was seven days. The mean duration was sixteen and two-sixths days.

Comparing the mean duration of these cases with the mean duration of all the cases, the latter, as will be presently seen, was seventeen and eight-seventeenths days. So that the mean duration of the cases with heart complication is somewhat less than the mean duration of all the cases! The duration in the facts just presented is considered to embrace the period between the date of the attack, and the date of convalescence. Calculating from the date of attack to the time of discharge, and the results in the two groups of cases are as follows: in the cases with heart complication, mean duration, twenty-six days; do., in all the cases, twenty-nine days! This shows, as in the former comparison, a shorter duration of the cases in which heart affection exists! So far as deductions from these facts are admissible, it is evident that heart complication exerts no influence to protract either convalescence, or apparent recovery from the disease.

Pain, and other Symptoms pertaining to Nervous System.—In all the cases, pain in the affected joints was more or less prominent. In some it was severe, in others slight. In several instances it is noted that more pain was experienced during the night, than in the daytime. Shooting neuralgic pains were noted in one case. Hysterical attacks, accompanied by neuralgic pains in the abdomen and chest, occurred near the time of convalescence in one case. Tenderness over the spinal column is noted in two cases.

Disorder of Digestive System.—The appetite was generally either lost or impaired, but was sometimes preserved when the disease was subacute, or moderately acute.

The tongue was usually more or less coated.

Constipation was present in the great majority of cases. Diarrhœa, occurring spontaneously in the course of the disease, is noted in one case.

Thirst was frequently present.

State of Urine and Perspirations.—The urine deposited, on cooling, the urate of ammonia in fourteen cases. In the remainder of the cases the state of the urine was not noted, or noted too

imperfectly to determine the non-existence of this deposit throughout the disease. The uratic deposit was observed to disappear in several instances, at or near the time of convalescence, and after a marked improvement in the symptoms had taken place. Its continuance after convalescence was established, or after marked improvement, is noted in a single case.

The sp. gr. taken in one case, once daily, for nine consecutive days, averaged 1.015, varying at different times from 1.012 to 1.017. In another case the sp. gr. at two observations was found to be 1.030 and 1.028.

The urine was albuminous in one case, and the histories contain information on that point in this case only.

Sweating, more or less frequently, and profuse, occurred in seventeen cases; and the absence of perspirations is not noted in the history of a single case. The sweating was slight, and persisted but for a short time in a case characterized by diarrhœa, this being the only case in which the latter symptom occurred. In this case the perspirations did not take place till after the diarrhœa had ceased.

In almost every instance in which perspirations are noted to have occurred, they were either confined to the night, or were more profuse at that time.

It does not appear that the sweating was ever followed by relief of the affection of the joints.

Pulmonary Symptoms.—The absence of pulmonary symptoms is the chief fact pertaining to this head. In two cases only is it noted that any cough and expectoration were present, and in them these symptoms were slight.

Duration.

TABLE SHOWING THE DURATION OF DISEASE IN EIGHTEEN CASES.

	No. 1. DAYS.	No. 2. DAYS.	No. 3. DAYS.	No. 4. DAYS.	No. 5. DAYS.	No. 6. DAYS.	No. 7. DAYS.	No. 8. DAYS.	No. 9. DAYS.	No. 10. DAYS.	No. 11. DAYS.	No. 12. DAYS.	No. 13. DAYS.	No. 14. DAYS.	No. 15. DAYS.	No. 16. DAYS.	No. 17. DAYS.	No. 18. DAYS
From attack to convalescence,	5	11	16	7	7	31	7	8	26	12	32	12	23	23	21	9		47
From attack to discharge,	11		30		7	40	7	18	44	17	46	21	78			12	57	

Mean duration to convalescence, seventeen and eight-seventeenth days.

Mean duration to discharge, twenty-nine and eleven-thirteenth days.

In no instance did the disease prove fatal.

In no instance did the acute eventuate in the chronic form of the disease.

In two instances, only, did apparent convalescence take place, and a recurrence of the severity of the symptoms follow.

Causative Influences.—In the histories of fourteen cases nothing is contained relative to causation, except in two instances it is noted that the patients were free livers.

In seven cases the patients attributed the disease to exposure to cold.

In one case the patient had been exposed to over-exertion, and mental anxiety prior to the attack.

In one case the rheumatism occurred as a sequel of dyssentery; and in one case it followed intermittent fever.

Treatment.—In fifteen of the cases the treatment was mixed, *i. e.*, it consisted of different remedies. Of the remaining six cases in two the treatment consisted solely, or almost exclusively, of the nitrate of potash; in two, solely of colchicum and bleeding, and in one case the account of treatment is incomplete.

The following remedies were prescribed, severally, in the number of cases appended:

Colchicum,	3 cases.
Nitrate of Potash,	9 "
Bleeding,	2 "
Mercury,	8 "
Opium, (in form of gum, sulphate of morphia, or Dover's powder,)	14 "
Citric Acid,	5 "
Sulphate of Quinia,	7 "
Iodide of Potash,	7 "
Digitalis,	1 "
Lemon Juice,	3 "
Liquor Potassæ,	2 "
Phosphate of Ammonia,	1 "
Vesication,	Several cases.

With respect to the apparent effects of these remedies, an interrogation of the histories develops the following facts and conclusions:

Colchicum.—1. This remedy was carried to the extent of vomiting and purging, with, apparently, marked relief, but the symptoms returned in three days with more severity than before. Duration of the disease not determinable. Colchicum and bleeding were the only remedies employed in this case.

2. Colchicum was carried to vomiting and purging, with apparent relief. Colchicum and bleeding were the only remedies employed. Duration of the disease to convalescence, five, and to discharge, eleven days.

3. Twenty drops of the tincture of colchicum were given every four hours. The apparent effect does not appear from the history.

4. Colchicum was carried to vomiting and purging. No relief of symptoms. Under its operation an endocardial murmur was first discovered.

Inference.—Colchicum, carried to vomiting and purging, sometimes produces apparently marked relief, and sometimes none whatever. The relief which follows is not always permanent. Under the operation of this remedy endocarditis may become developed.

Citric Acid.—Two cases were treated exclusively with citric acid.

1. Citric acid was given in doses increased to an ounce daily. Patient admitted into hospital three weeks after the date of the attack. Had taken, before his admission, only a purgative. Convalescent in eleven days, and discharged twenty-seven days after admission.

2. Citric acid in doses increased from two drachms to an ounce daily; and on one day two ounces were taken. Patient entered third day after date of attack, having had no medicine prior to his admission. Convalescent on the twelfth day after the attack, and discharged, quite well, on the twenty-first day.

Citric acid entered somewhat into the treatment of several other cases, but it is impossible to determine what effect it may have produced on the course of the disease.

In both the cases treated with citric acid, exclusively, the duration of the disease to convalescence and discharge was less than the average duration in all the cases.

Nitrate of Potash.—One case was treated exclusively with this remedy. The patient entered two weeks after the date of the attack. He was convalescent and able to walk about twenty-three days after admission, and discharged shortly afterward.

Facts pertaining to the cases in which this remedy was employed in addition to other remedies, are as follows:

1. Symptoms relieved the day after the remedy was prescribed, but remainder of history defective.

2. Effect does not distinctly appear in the history, but it is presumed not to have been altogether satisfactory, as, after two days, the sulphate of quinia was added.

3. Continued through the disease in addition to the proto-iodide of mercury, and lemon juice. Convalescence in seven days.

4. Commenced on the fourth day in dose of two drachms daily. This constituted the treatment, with the exception of the sulphate of morphia at night, and the free use of lemonade. Patient had previously been purged with the sulphate of magnesia, and had taken the sulphate of morphia. Convalescence in seven days.

5. Entered six days after date of attack. Nitrate of potash, an ounce daily. Endocarditis developed four days after admission. He was then mercurialized. Convalescence in twenty-five days, and discharged thirty-eight days after admission.

6. Nitrate of potash an ounce daily, with calomel a grain hourly, endocarditis existing. Under this treatment daily improvement. Convalescence five days after admission, twelve days after the date of the attack.

7. Nitrate of potash and mercury continued to ptyalism. Case complicated with endocarditis. This treatment commenced on the fifth day after admission, and fourteenth day after date of attack. Previously treated with colchicum, under which endocarditis became developed. Under the use of the nitrate of potash and mercury, rapid improvement. Convalescence fourteen days after admission, and discharged in twenty-three days. This patient had a short relapse after appearing to be convalescent.

8. Twenty-four days after the date of the attack, nitrate of pot-

ash half an ounce daily. Previously had had this remedy in small doses in conjunction with colchicum. Continued in the quantity above stated for ten days. Under its use the urine became clear, and the symptoms relieved. The urine was increased in quantity. After the continuance of the remedy for ten days, the sulphate of quinia, in doses of five grains three times daily, was substituted.

Conclusions.—(*a.*) Duration of disease not always abridged by this remedy; see No. 5, in foregoing list, in which duration was considerably longer than the average.

(*b.*) In some instances relief follows the use of the remedy, and appears to be an effort of it. In other cases no decided relief follows, even when the remedy is continued for several days.

(*c.*) Endocarditis may be developed while the patient is under the use of this remedy. See case No. 5.

(*d.*) No unpleasant effects are noted, the remedy having been given, in several instances, in doses of an ounce in the twenty-four hours.

(*e.*) That the remedy possesses much power to control the disease is not apparent from the analysis of these few cases.

Bleeding.—1. Colchicum had been given, with transient relief, in this case. Four days afterward, the symptoms having returned with increased severity, bleeding was practiced, there being but moderate febrile movement, and the pulse not hard. Relief followed; but on the day but one afterward, the symptoms regained their former severity.

2. Bleeding was practiced on the evening of the second day. No improvement of the symptoms followed. On the next day colchicum carried to the extent of vomiting and purging. Relief followed this remedy. On the next day another bleeding, after which the relief become more decided. Febrile movement nearly gone, and from that date convalescence proceeded rapidly.

Summary.—In the first case, transient relief only appears to have followed the bleeding. In the second the remedy appeared to contribute to the abatement of the disease, and the relief was permanent.

Mercury.—1. The proto-iodide of mercury was given, in doses of one grain three times daily, for several days, but not carried

to ptyalism. The use of mercury was preceded by the nitrate of potash and lemon juice. The precordia was blistered. Endocardial murmur existed. Convalescence in seven days.

2. Calomel two grains, and opium two grains, every four or six hours, was continued till eight doses were taken. Then suspended on account of the existence of diarrhœa. Case accompanied by endocardial murmur.

3. Patient had taken calomel for six days, in small doses, before admission into hospital. On the fourth day after admission, the existence of endocarditis being determined, he was again placed under the use of calomel, and it was continued till ptyalism was induced. Prior to the discovery of endocarditis, after admission, the nitrate of potash had been given. Convalescence in twenty-six days, and recovery from the rheumatism after thirty-eight days.

4. Endocarditis existed in this case. Calomel given at once, in doses of one grain hourly. Also inunction with mercurial ointment, and blister to precordia. Ptyalism speedily induced. Convalescence in five days, and the patient was quite well in ten days after admission.

Had been affected with the disease for about a week prior to his admission, but had kept the bed for two days only.

5. Citric acid was the only remedy given for twelve days. Pericarditis then suspected, and calomel, in doses of a grain, with Dover's powder, given three times daily. Continued till ptyalism was induced.

Intermittent fever supervened. Patient discharged seventy-eight days after date of attack, quite well.

6. Endocarditis determined on the fifth day after admission, and fourteenth after the date of attack. Colchicum had been the remedy employed up to the discovery of endocarditis. Calomel was then prescribed in conjunction with digitalis, squill, and Dover's powder; and a blister applied to the precordia. Mercury was carried to mild ptyalism. Convalescence on the fourteenth day after admission, and twenty-third after the date of attack. Had a brief relapse, but was shortly afterward discharged, quite well.

7. On admission, tenth day after the date of attack, calomel, one grain, with Dover's powder, ten grains, twice daily, was pre-

scribed, and continued for four days. Citric acid was also given. At the end of four days all treatment was suspended. Convalescence on the eleventh day after admission, and the twenty-third from the date of attack.

8. On admission, fourth day of disease, calomel, one grain, with Dover's powder, ten grains, was given twice daily. Under this treatment the evidences of endocarditis appeared the second day after admission, and the sixth day of the disease. Calomel, one grain, and Dover's powder, three grains, three times daily, were prescribed; a blister to precordia, and the nitrate of potash, three drachms in the twenty-four hours. Ptyalism was not induced. Convalescence on the fifth day after admission, and the ninth after date of attack. Patient discharged on the eighth day after admission, and the twelfth day after the date of the attack. Bellows sound scarcely appreciable at the time of the discharge.*

Summary.—In six of the foregoing eight cases, endocarditis was presumed to exist from the presence of the bellows murmur; and in one of the two remaining cases, pericarditis was suspected.

In all the cases in which heart complication existed, mercury was prescribed.

In four of the cases ptyalism was induced.

Endocarditis became developed in one case in which mercury had been given for six days; and in another case, in which it had been given in doses of a grain twice daily for two days.

With the exception of one case, mercury was not prescribed (save as a purgative) unless heart complication existed, or its existence was suspected.

It has been already seen that the average duration of the cases with heart complication was less than the average duration of all the cases. To what extent, if to any, this fact is due to the mercurial treatment, cannot be settled by the data embraced in the present collection of observations.

Opium.—1. Dover's powder was given with apparent relief.

2. Opium, one grain repeated in three, four, or six hours, appeared to afford marked relief of suffering.

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*It is worthy of notice that in this case, in which the physical sign of endocardial exudation diminished in a notable degree, ptyalism was not induced, and a small quantity of mercury only was given.

3. Sulphate of morphia, one-fourth of a grain, repeated every four or six hours. Apparent effect not noted.

4. Opium, and the sulphate of morphia, were given throughout the disease with apparently marked relief of suffering, but with no apparent effect on the progress of the disease,

5. Opium, with the phosphate of ammonia, constituted the chief remedy. The disease supervened on dysentery. Convalescence on tenth day, and quite well on eighteenth day.

6, 7, and 8. Dover's powder in combination with calomel.

9. Dover's powder, ten grains, and calomel, one grain, twice daily, continued for four days. No other treatment, save sol. citric acid for drink. Convalescence on the eleventh day, and discharged on the twenty-first day.

10. Dover's powder, ten grains, and calomel, one grain, twice daily, for two days. The existence of endocarditis was then determined. Afterward Dover's powder was continued in combination with mercury.

11. Sulphate of morphia, half a grain, at night. Relief of symptoms followed, but no apparent effect on the progress of the disease.

Conclusions.—Opiates afforded relief of suffering, but these cases furnish no evidence of aught beyond a palliative effect.

Endocarditis became developed in one case in which Dover's powder, ten grains, twice daily, had been continued for two days.

Sulphate of Quinia.—This remedy was given in several cases, in doses of one or two grains, repeated three or four times daily, at or near the time of convalescence. The instances in which it was given in larger doses, during the progress of disease, are as follows:

1. On the fifth day the iodide of potash was suspended, and the sulphate of quinia, twelve grains, in the twenty-four hours, substituted. It was continued in this quantity for several days, but the patient not improving so well under its use as before, the iodide of potash was resumed, and the sulphate of quinia discontinued.

2. At the tenth day of the disease, the sulphate of quinia, four grains, three times daily, was prescribed, continued for three days, and then discontinued, no apparent effect being produced.

3. Sulphate of quinia, five grains, three times daily, was given thirty-one days after the date of the attack, the treatment preceding having consisted of the nitrate of potash. The remedy was continued for ten days, and the dose increased to eight grains, three times daily. It was continued in these doses for seven days. The improvement was very gradual, and at the end of the period just named, the iodide of potash was substituted.

Conclusions.—No evidence is afforded by these few cases of the efficacy of the sulphate of quinia in controlling the morbid processes upon which rheumatism depends. The effect was wholly negative.

Iodide of Potash.—1. Six days after the date of the attack, the iodide of potash was prescribed. Commencing with twelve grains in the twenty-four hours, the quantity was increased to thirty-two grains. It was continued in the quantity last named for four days. In this period moderate improvement had taken place. The sulphate of quinia was substituted, but the patient appearing not to improve under the latter treatment, the iodide of potash was again resumed, and the sulphate of quinia discontinued. Commencing with twenty grains, the quantity was increased to sixty grains in the twenty-four hours. Under this treatment convalescence gradually took place. The patient was sufficiently restored to walk about with crutches a month after the date of the attack.

2. The iodide of potash was given during the progress of the disease, in doses of five grains, three times daily. The nitrate of potash, and the sulphate of quinia had previously been employed. The patient improved about equally under each of these remedies.

In addition to the foregoing, the iodide of potash was prescribed in two of the cases, but with what effect does not appear from the histories.

It is evident that these few observations furnish no positive evidence of a controlling efficacy in the iodide of potash.

Lemon Juice.—This was given as a remedy in three of the cases. In one case it had been given freely before the patient came under my charge. It was continued till diarrhæa occurred, and the stomach revolted against its farther use. No apparent effect on the progress of the disease was produced by it.

In the other cases it was not given in large quantity, and it was associated with other remedies, so that its effect could not be estimated.

Liquor Potassæ.—This remedy was prescribed in two of the cases. In one no apparent effect was produced; nor in the other case could any remedial influence be fairly attributed to it, the improvement taking place very slowly.

Concluding Remarks.—The results developed by the analysis of the few cases contained in this collection are of importance only as a small contribution toward the accumulation of facts by which it is to be hoped, the merits, real and relative, of the several remedies that have been noticed, may be determined. As the true point of departure for studying the effects of any, or all remedies, our science lacks here, as with reference to most other diseases, knowledge of the average duration, etc., of a series of cases in which the disease was allowed to pursue its course undisturbed by medicinal interference. This knowledge cannot be voluntarily and deliberately acquired. Facts bearing thereon can only be obtained slowly, as chance supplies them.

And, at the present moment, we cannot answer the question, what are the intrinsic tendencies of articular rheumatism as respects its continuance, its complications, and remote consequences in the organism? Were we able to answer this question by an appeal to facts, we should then have a criterion by which to estimate the favorable or unfavorable influences of different measures of treatment pursued in a series of cases. As it is, in bringing statistical information to bear on the therapeutics of the disease, we can only study the immediate apparent effects of different remedies, and institute comparisons, in this point of view, and also with reference to the duration of the disease, etc., in different series of cases treated by different methods.

So far as the few observations go which have been presented in this paper, they lead to a distrust of the efficacy of the several remedies employed, rather than tend to increase confidence in our ability to control, by means of them, the progress of the disease. Some of the remedies appear to possess more or less palliative power. This is true of colchicum, bleeding, and opium; but as

respects the duration of the disease, it was in some cases short, and in other cases protracted, under different remedies. This being so, it is, perhaps, more philosophical to attribute these differences to variations in the tendencies of the disease, in different cases, rather than to the agency of the remedies used.

It is to be observed that under the use of several remedies supposed to possess more or less remedial efficacy in this disease, the complication most to be apprehended, viz., heart affection, became developed. This was true of colchicum, the nitrate of potash, calomel, and opium.

Inasmuch as the purpose of this paper is simply to give the facts elicited by the analysis of the few cases, the histories of which I have recorded, discussion of any of the various questions which suggest themselves relating to therapeutics, as well as other branches of the subject, would be out of place.

ART. II.—UNIVERSITY CLINIQUE.—CASES AND OBSERVATIONS IN SURGERY.

BY S. D. GROSS, M. D., PROFESSOR OF SURGERY IN THE UNIVERSITY OF LOUISVILLE.

CASE 4.—*Urinary Calculus; Incontinence of Urine for Sixteen Months; Lithotomy; Cure.*

THE patient whom I now present to you is laboring under calculus of the bladder, attended with certain symptoms which invest the case with peculiar interest. His name is Harvey Williams. He is fifty-three years of age, a farmer by occupation, married and the father of ten children, being a resident of Newberg, Warrick county, Indiana. About two years ago he began to experience some pain in urinating, more especially during the latter stages of the process, accompanied with a burning sensation at

the neck of the bladder and along the course of the urethra. The symptoms lasted for about five months, when he was seized with complete incontinence of urine, which has lasted uninterruptedly until the present moment, a space of sixteen months. Owing to his infirmity, the man has been constantly wet and uncomfortable, and has never been able to lie down at night. His habit is to sleep in an arm-chair, with a vessel under him to receive the urine as it flows from the bladder. You will notice that he wears a short apron, the object of which is, as he informs me, to cover the penis, which, in consequence of the incessant dribbling of urine, he carries constantly on the outside of his pantaloons.

The pain in urinating, the symptom which first attracted his attention, has been gradually increasing in violence, and is frequently paroxysmal in its character; it is generally attended with griping and tenesmus, and darts about in different directions through the pelvic region, the perinæum, groins, and thighs. The recumbent posture usually affords him some relief, but the moment he gets up, sits down, or walks about, his sufferings return with their accustomed severity. Owing to the frequent straining which attends the urinary distress, there has been, for some time past, prolapsus of the bowel, which the patient says he frequently returns with his finger. He has passed a great many little calculi, varying in size from that of a hemp-seed to that of a small pea, the discharge being always attended with an increase of the local suffering, proportioned to the volume of the concretion and the sensibility of the urethra. During the early stage of his complaint, before he lost his control over the bladder, the calls to urinate were frequent and very urgent, but since the fluid has been dripping off his suffering has been less, except when his water is involuntarily forced away, as it often is, in a strong stream. Formerly the flow of urine was often interrupted as if something had suddenly blocked up the passage. The man discharges a great deal of ropy mucus and occasionally pieces of clotted blood.

Considering the amount and character of the local suffering, it is surprising what little derangement there is in the general health. Still the disease has left its impress upon the system, and

that in a marked degree. The countenance is pale and care-worn, and there is, at times, a great deal of mental depression. The pulse, however, is soft and of natural frequency, the appetite is good, and there is seldom any febrile movement. The skin and bowels act sufficiently well. The sleep is, of course, interrupted, but he has often snatches of several hours' duration, and in the day and night he generally obtains as much as men commonly do in health.

My object in bringing this man before you this morning is to show you his appearance, to describe his symptoms, and to sound him, with a view of ascertaining the real condition of his urinary organs. He has all the rational signs of urinary calculus, but to determine whether he is really laboring under this disease, it is absolutely necessary to explore his bladder; for no surgeon, who has any self-respect, or who has the slightest regard for the welfare of his patient, would think of performing so serious an operation as lithotomy without such a precaution. You should never do anything without a proper reason. To cut an individual for stone, simply because he has some of the symptoms of stone, when you are not satified of the fact from a thorough exploration of the bladder, would be the height of folly, and would justly subject you to the ridicule and contempt of your professional brethren. Unfortunately such mistakes have occasionally been committed even after the use of the sound, and that, too, by men who, from their position, ought to have known better. I am acquainted with the particulars of two cases in this city, in which lithotomy was performed by the same operator, without a calculus having been found. I would not be guilty of such an error for the whole State of Kentucky. Last summer a friend in New York wrote to me that he had just returned from London, where he had spent some time in visiting the different medical institutions. At one of the great hospitals, whither he had been attracted by the fame of its surgeons, he witnessed, one day, the operation of lithotomy; but, to his surprise, the patient, after having been upon the table for a whole hour, was untied, and carried to his bed without any stone having been found. It is hardly necessary to add that my friend went away with no very favorable impression of the operator's ability as a diagnostician.

In sounding this patient I shall place him upon his back, his

head resting upon a pillow, and his lower extremities, divested of clothing, being slightly separated from each other and raised towards the pelvis. A steel instrument, termed a sound, fashioned like a catheter, and furnished with a perfectly smooth and rather large handle, is then introduced into the bladder and moved about in different directions, so as to bring its point and curved part, if possible, in contact with the foreign body. The object is not merely to feel the stone, but, by percussing it, to elicit the peculiar metallic sound, technically denominated a *click*, so characteristic of the presence of a urniary concretion. When these two signs exist, no surgeon can, for a moment, entertain any doubt respecting the real nature of the case; they are positive, unequivocal, pathognomonic. Both these signs exist in the case before us. The moment the instrument enters the bladder it touches the stone and produces the peculiar noise adverted to. The concretion is apparently of large size, but of this we cannot be positively certain, because the instrument cannot, in consequence of the contracted and sensitive condition of the bladder, be inserted to any distance, so as to enable us to measure its volume.

In sounding there should always be a certain quantity of water in the bladder; not too little, on the one hand, lest the bladder should, by its contraction, impede the movements of the instrument, and not too much, on the other, lest the concretion be lost in the redundant fluid. On an average the quantity should not exceed five or six ounces. The proper procedure is to request the patient to hold his urine several hours before the contemplated examination, or, when this is impracticable, to inject the requisite quantity by means of the catheter and syringe. In the present case, unfortunately, the patient can neither hold his urine, nor can he, in consequence of the size and situation of the calculus, and the contracted and irritable state of the bladder, tolerate the latter operation. This, however, is to be the less regretted, because the diagnosis could not possibly be more clear and satisfactiory if we could see the stone in the bladder, or hold it in our hand.

Sounding should never be performed the moment the patient comes under our charge, especially if he has undergone a fatiguing journey. On the contrary, he should always be subjected to a sort

of preliminary treatment, consisting of rest in the horizontal posture, light diet, and purgatives, with, perhaps, the warm bath, and, in most cases, the use of soda and infusion of uva ursi and hops. The latter means are particularly indicated when there is unusual irritability of the bladder, with great pain and distress in voiding the urine. It is wonderful what prompt improvement this prescription commonly affords in a few days, in apparently the most unpromising cases of this description. In my hands it has often acted like a charm.

The treatment here mentioned has been pursued in the case of Williams for some days past, and we shall rigidly persevere in it for the present, or until there is reason to believe that he is in a condition to bear the operation necessary for his relief.

It was doubtful for several weeks whether Williams really was a fair subject for lithotomy, such was the state of his bladder and of his general health. Determined, however, to afford him the only chance that presented itself for his relief, I continued to give him daily attention, until, finding that his condition was much improved, I requested the opinion of my collegues upon the case, and as many as attended the consultation, ROGERS, PALMER, and FLINT, all concurred in the propriety of a resort to the knife. The pulse at this time was perfectly natural in point of volume and frequency, the appetite and sleep were good, and the bladder was much more patient of its contents. This was on a Thursday. The operation was now appointed for the following Saturday, but early on that day, in consequence of some misgivings about its result, the man disappeared from the Infirmary, and nothing more was heard of him for nearly three weeks, except incidentally, that he had gone home, a distance of one hundred and twenty miles, having travelled the greater part of the road on foot during very cold weather. Notwithstanding the fatigue and suffering endured during this journey, which it took him eight days to complete, the man, upon his return to Louisville, was decidedly improved in health, and in every respect in as good a condition for an operation as at the time of his unceremoneous departure.

The patient being fully determined to submit to the operation, I shall now proceed to perform it, premising a few remarks upon the different steps of it.

It is not necessary to say anything here respecting the manner of securing the patient. The object of the procedure is to render him as passive as possible, and to enable the assistants, who have charge of the limbs, to expose the perinæum, as it lies upon the edge of the table, to the greatest advantage to the operator. Chloroform is next administered, and as soon as its full effects are apparent, a staff—a steel instrument, shaped like a catheter, and having a very wide and deep groove, with a long, broad and rough handle—is introduced into the bladder, and confided to an assistant standing on the left side of the patient. This assistant also takes charge of the scrotum, holding it out of the way of the operator. The staff should be as large as the urethra will readily admit; the handle should be inclined a very little towards the right side of the median line, and be held in such a manner as to form almost a right angle with the body. The curved part of the instrument should be hooked up against the arch of the pubes, otherwise there will be danger of wounding the rectum. Most lithotomists recommend the staff to be introduced before tying the patient's feet; but such a practice is, on many accounts, objectionable, and I never adopt it. The stone having been touched with the staff, to assure ourselves of its presence, the perinæum shaved, and every assistant instructed in regard to his duties, the operator, sitting upon a low chair, or resting himself, as I generally do, upon one knee, stretches the integuments of the upper part of the perinæum, and enters his knife, a long and slender scalpel, about fifteen lines above the anus, beginning at the raphé and terminating a short distance below the margin of the anus, nearly midway between this outlet and the tuberosity of the ischium, but a little nearer the latter than the former. The incision in the adult is at least three inches in length, and it embraces the skin, the cellulo-adipous substance, and the superficial fascia; its direction being obliquely downwards and outwards. Re-inserting the knife into the upper angle of the wound, the operator next divides the transverse perinæal muscle and artery, the deep-perinæal ligament, and the membranous portion of the urethra, the opening into the latter being large enough to admit the point of the fore-finger of the left hand. In the third and last stage of the proceeding, the operator divides the remainder of the mem-

branous portion of the urethra, the left lobe of the prostate gland and the neck of the bladder, in a direction obliquely downwards and outwards; care being taken to lateralize the knife properly, and to push the rectum over towards the right side with the finger as it lies in the upper part of the wound, lest this tube should be accidentally injured. The moment the bladder is incised the urine gushes out, thus apprising the surgeon of his progress, and at the same time forcing down the calculus to the neck of the organ. The staff is now withdrawn and the finger pushed on into the wound, which, if necessary, may now be dilated by the pressure of the finger, or, if deemed prudent, with a probe-pointed bistoury. In general I prefer the former, as less likely to produce hemorrhage and other mischief. Keeping the finger in the bottom of the wound, the forceps are passed over its surface into the bladder, where they are used first as a searcher, and next for grasping the calculus. Having accomplished this object, the extraction is effected very much as the head of the child in parturition; that is, in the direction of the artificial outlet, and by moving the instrument *gently* and *coaxingly* from side to side, lest undue violence be inflicted upon the parts, especially the neck of the bladder and the prostate gland. It sometimes happens that the calculus is seized in its large diameter; when this is the case, the hold must be relinquished, and the direction of the concretion changed. For want of this precaution great difficulty is sometimes experienced in this stage of the operation, and great, if not irreparable, injury inflicted upon the parts involved in the operation. If several calculi are present they are seized and extracted one after another. Fragments and small concretions are generally best removed with the scoop. Clearance having thus been effected, the bladder is freely syringed with tepid water, thrown in with some degree of force, that it may reach every part of the organ, and thus effectually wash away every particle of calcareous matter. This being done, and seeing that there is no hemorrhage, the patient is liberated from his constrained position and put in bed.

In performing the lateral operation there are several circumstances which claim particular attention, because they exert a most important influence, either for good or evil, upon the result of

the case. The wound, considered in its ensemble, will be found to resemble a truncated cone, the base of which corresponds with the surface of the perinæum, while the apex is represented by the neck of the bladder. Now the rule is, in all cases, to make the base large and the apex small; or, in other words, to have a free and dependent external opening, and a narrow internal one. By this procedure a ready outlet is afforded to the urine, at the same time that this fluid is prevented from insinuating itself round the prostate gland and neck of the bladder; an occurrence which is always followed by disastrous effects, either eventuating in sloughing of the parts or in the death of the patient. The division of the prostate gland, in its entire length, can be necessary only when the foreign body is of extraordinary dimensions, and even then it is questionable whether it would not be better to break the concretion than to subject the parts to the risk of infiltration.

Another circumstance, already incidentally mentioned, is not to use the knife too freely in dividing the deep-seated structures, but instead of this to employ the finger, with which they may often be easily torn to any extent that may be desired. This is particularly true in regard to young children, in whom these structures are always more or less dilatable and lacerable. The object of this procedure is to prevent urinary infiltration and undue injury to the vessels; two circumstances so liable to happen when the parts are freely divided with the knife.

I do not deem it necessary or even proper to retain a tube in the bladder, to conduct off the urine during the first few days after the opetation. The practice, which dates as far back as the time of Colot, in the early part of the last century, has been warmly advocated by several modern lithotomists, especially the late Mr. Liston, but without, as I conceive, any just reason. Indeed, so far from doing good, I think it may generally be regarded as tending to do harm, by exciting undue irritation both in the wound and the mucous membrane of the bladder, attended with pain and spasm in the neck of this organ. It is for this reason that I never employ it; and, as to the infiltraiion of urine which it is designed to prevent, I am happy to say that I have never met with it in my own practice after any operation of this kind. Nor is it necessary to tie the patient's legs together after he has been placed

in bed; on the contrary, I always permit him to adopt whatever posture he may choose or find most agreeable.

There is sometimes considerable hemorrhage after this operation, and the blood, as you may suppose, may proceed from various sources. In the case of Williams there was but little bleeding at the time of the operation; about three hours afterwards, however, I was requested to visit him, and found a clot of blood, about the size of a small fist, between his thighs upon the draw-sheet. Upon examining the parts, with the aid of several of my young friends, the blood was seen issuing slowly from the bottom of the wound, evidently from the prostate gland and neck of the bladder, the vessels of which, especially the veins, had, doubtless, become very much enlarged under the irritation occasioned by the constant lodgment here of the calculus. Finding that no ligatures could be employed, I contented myself with introducing into the wound, as far back as possible, a piece of soft sponge, dipped in powdered alum, and in confining this firmly by means of a large compress and a T bandage. No hemorrhage showed itself after this treatment. The urine soon began to pass off by the side of the tampon, which was expelled spontaneously about sixty hours after its introduction, and, excepting some degree of abdominal tenderness, on the second day after the operation, the case went on without any untoward symptoms. The recovery, however, has been very tardy, and even now, at the end of several weeks, a considerable portion of the urine still passes through the wound, though this is, apparently, almost healed. These circumstances I ascribe to the fact that, during the first month after the operation, there was hardly any attempt at re-union, the wound being large and gaping, and the granulations pale and flabby, and all this despite the care which was taken to improve the general health by the employment of milk-punch, nutritious food and other means. About the end of this time, when the parts seemed to be doing well, there was, one day, a sudden discharge of thick, greenish-looking matter from the wound, so copious and offensive as to convince me that it must have proceeded from an abscess about the prostate gland and neck of the bladder. The flow soon ceased, and the patient did not appear to have experienced any ill effects from it in any way. During the last few weeks his im-

provement has been quite satisfactory, and there is reason to believe that the recovery, although slow, will be complete. I am induced, however, to believe, from the fact that there is occasionally a slight discharge of pus, that there may be ulceration of the mucous membrane of the bladder, or organic disease of the kidneys, and, should this conjecture be true, then all our hopes in this respect will be very likely to be disappointed.* The urine, before the operation, was generally alkaline and surcharged with thick, ropy mucus. Since the operation the mucus has greatly diminished in quantity, and instead of being alkaline it has, at times, been remarkably acid. The calculus, according to Prof. Silliman, consists, externally, of phosphate of magnesia.

Case 5.—*Calculus in the Bladder; Lithotomy; Cure.*

A week ago I performed in your presence the lateral operation of lithotomy upon a man named Williams, from the State of Indiana. I am happy to inform you that he is doing well, and that everything about the case augurs a favorable termination. To-day it is my intention to perferm a similar operation upon a man from the vicinty of Madisonville, Hopkins county, Kentucky. His age is forty-three; he is married, and is the father of ten children; his habits are strictly temperate; his occupation is farming, and his name is David A. Leech. He resides in a coal region, and the water which he uses in his family is partly lime and partly free-stone. About thirteen years ago he was attacked with a severe pain in the region of the kidneys, extending down into the testicles, and accompanied by extreme nausea and vomiting. He states that he had several paroxysms of this kind in pretty rapid succession, and that he was invariably relieved by a dose of purgative medicine. A short time after these attacks he experienced some uneasiness in the neck of the bladder, which continued to within three years of the present time. It then became much more aggravated, and was attended with frequent and urgent calls to void his urine, which passed off involuntarily. The pain extends along the entire track of the urethra, and is much increased

* Since the above was written, this patient has entirely recovered.

by walking and riding on horse-back. There is a constant soreness at the neck of the bladder, and he has occasionally discharged small portions of blood and also little calculi. The general health is little, if any, impaired.

Upon sounding this patient in the latter part of October, the instrument immediately came in contact with a calculus, which, from the sensation communicated to my finger, I supposed to be considerably under the medium size. In the operation a small fragment was broken off and discharged soon afterwards. Presuming it might be practicable to crush the calculus, I requested the patient to remain perfectly quiet, to live as lightly as possible, to take an occasional purge, and to drink, four times a day, at equal intervals, a small wine glassful of uva ursi and hop tea, with about thirty grains of bicarbonate of soda in each dose. A large catheter was inserted into the bladder every day, in order to render that organ tolerant of the presence of instruments and to dilate the urethra. Some time having been spent in this manner, I introduced JACOBSON'S lithotriptor, but, owing to the restlessness of the patient, growing out of his excessive irritabilty, I was obliged to desist before I could succeed in grasping the foreign body. About a week afterwards the operation was repeated with no better success. The last attempt was followed by a smart attack of cystitis, which prohibited, for the time, all further interference. Under the usual treatment the disease has gradually subsided, and the parts have sufficiently recovered to justify a resort to the knife. The operation which I shall adopt is the same as that which I performed upon Williams at our last clinique. With the nature of this operation, and the manner of executing it, the parts which are concerned in it, and the position of the patient and of the assistants, you are already familiar, and I need not, therefore, again describe them. We shall give the patient chloroform, as in the previous case, and when he is thoroughly influenced we shall proceed to our task.

The calculus, as you have no doubt noticed, was seized and extracted with great facility, its volume, which is small, having been conducive to this end. The bladder having been washed out with tepid water, thrown in with a large syringe, the patient was kept for a short time upon the table to see whether there

would be any hemorrhage. Finding that more blood issued from the wound than was proper, the edges were separated with a view of discovering its source. The greatest amount seemingly proceeded from the deep portion of the wound, as was proved by the fact that, when pressure was made, especially towards the pubes, the flow was either greatly diminished or entirely arrested. The transverse perinæal artery, although it did not bleed much, was ligated, as was also a branch of the posterior hemorrhoidal. Finally, a ligature was applied to the artery of the bulb, when, a soft sponge being introduced into the wound, to render "assurance doubly sure," the patient was untied and put to bed.

No secondary hemorrhage ensuing, the sponge was withdrawn at the end of the second day, and the man recovered without the slightest untoward symptoms of any kind. The only medicine which he took was an occasional laxative, and now and then a small quantity of morphia, to quiet nervous irritation. The wound, as in the case of Williams, was a little longer in healing than usual, and the urine did not begin to resume its natural channel until towards the close of the fourth week. This was, doubtless, owing, mainly, to the irritation which it had experienced from the contact of the sponge, and perhaps also to the fact that I was obliged to enlarge it somewhat in my attempt to ligate the vessels above alluded to. The urine now, at the end of six weeks and a-half, is voided entirely by the natural route, the wound in the perinæum being nearly cicatrized, and the general health excellent. The urine, tested by Prof. Silliman, is slightly alkaline, and contains a few crystals of soda. The man is able to retain it very well, and does not void it oftener than once every three or four hours. I have given the patient permission to go home next Monday. To guard against relapse, I shall request him to live upon plain, simple food, to regulate his bowels and secretions, to wear flannel next the skin, to avoid exposure to wet and cold, and to take, twice a day, about two hours after dinner and supper, in a third of a tumblerful of cistern water, thirty grains of bicarbonate of soda, to prevent the formation of flatulence and acidity in the alimentary canal.

ART. III.—A HISTORY OF SOME CASES OF DIPHTHERITIS.

BY AUGUSTUS M. AYRES, M. D., OF SALEM, MISS.

THE object of this communication is to give some description of the disease that heads this article, as it prevailed in this vicinity during the summer and fall of 1852. It was a visitation that will be long remembered by three families among whom its ravages were principally confined, and to none will it be more painful and bitter than to the writer of this article, a little sister having been one of its first victims.

The first cases occurred in the family of Mr. B., living four miles north-west of this place. I saw only one of the cases in his family, a negro boy about four years old, who was moribund when I first saw him. There were several cases in his family, about half of which died, which was the usual mortality. The next cases occurred in the family of Mr. S., living some four miles East of Mr. B , between whose families there had been no correspondence. The first case was an infant son of Mr. S., about twelve months old. I was called to see him in a few hours after he was taken, and learned from the family that he had had a chill followed by fever, they farther stated that they supposed his throat was sore, he having some difficulty in swallowing, on examining his throat I very readily recognized a patch of false membrane adhering to one of the tonsils (where it was invariably first deposited in all the cases I saw,) which by next examination had spread over the back part of the fauces in irregular patches. The inflammation soon extended into the posterior nares, producing a very abundant and exceedingly offensive discharge from the nose. His case progressed with but little variation, (shreds of false membrane coming away to be superceded by others,) for some four or five days, when his fever subsided with general amelioration of all the symptoms, and he had a very rapid recovery. It would be tedious

to enter into a full detail of the treatment that was pursued for his case from day to day. Emetics of Ipecac were given every four or five hours, in fact at every recurrence of difficulty of breathing, two or three small mercurials were given per diem, nitrate of silver was applied in substance three times per day to the inflamed membrane, and various other local applications and gargles were used, and among the rest BRETONNEAU's much vaunted muriatic acid and honey.

The next case was my little sister, who was taken in precisely the same way. Some seven or eight years old. The false membrane seemed to extend much more rapidly, reaching into the nose, giving rise to the same fœtid serous discharge, and dipping, in the space of twenty-four hours, into the larynx and trachea, producing croupy symptoms of the most aggravated character, soon followed by stupor and delirium from want of proper decarbonization of the blood going to the brain, then coma with failure of the circulation and death in about sixty hours from the time of her first complaining.

The third case was a very interesting boy of Mr. S., seven or eight years of age, whose case so nearly resembled the one just reported, terminating in death in about the same time, that it would be mere repetition to enter into details..

The next cases were in the family of Mr. M., about one mile East from Mr. S., whose families were in constant correspondence. He had four cases, children, two of whom died with the same formidable array of symptoms. There were six cases in one other family; three of whom died.

I only saw the disease in two adult persons, one of whom was my much esteemed friend Dr. DAVIS. In his case the disease was confined to the tonsils and fauces, and showed no disposition to extend into the larynx and trachea, it lasted in his case three or four days, being so mild as not to prevent him attending his professional duties most of the time.

I saw one well marked case of diphtheritis during the past summer, in a little boy about twelve months old. The larynx and trachea soon became involved, producing the most violent croupy symptoms, terminating in death, by asphyxia, in forty-eight hours. This is the only case that has occurred within my

knowledge during the past year. Most of the cases occurred in children under ten years of age.

Treatment.—In the mild cases very little medication was necessary, a simple mercurial cathartic with occasional cauterization of the inflamed throat with lunar caustic, was all that I found necessary. In the more malignant variety, and one of the cases I had was of this kind, all the remedies were resorted to that promised any good. I tried venesection in the second case, a stout athletic boy who had a full and bounding pulse, but before much blood had been abstracted symptoms of approaching syncope manifested themselves, and his arm was tied up; it took his system much longer than usual to recover from the syncope which made me think it at least of very doubtful propriety, and I did not resort to it in any other cases. It did not seem to exert any controlling influence whatever, as the inflammation extended with the same rapidity afterwards as it had done before. In one other case leeches were applied externally to the throat, but without producing any benefit whatever. Mercurials were given, in all the bad cases I treated, with an unsparing hand. I did not however succeed in the first case in inducing ptyalism. In the cases in which the larynx and trachea were involved they terminated in death before its influence could be brought about. Calomel seems to be the favorite remedy of all authors who have written on the disease, and from its influence in correcting the disposition in the blood to the deposit of false membrane, it occurred to me to be the remedy upon which most reliance could be placed. Most of the cases bore it well in pretty large and frequently repeated doses, but in cases terminating in croup they died before its specific influence could be induced. Emetics were resorted to in a few of the cases with a view to the detachment and expulsion of the false membrane, and frequently seemed to render good service. As to the exterior local treatment, various rubefacients, blisters, and stimulating poultices were resorted to but without effecting much good. The most important remedies, as I believe, are those which are applied directly to the inflamed parts, and of these I think nitrate of silver, either in substance or strong solution is preëminent; my usual custom was to apply it over the whole extent of the inflamed throat in view, three times per day. Powdered alum, borax, sulph.

copper, and muriatic acid diluted with honey, according to the method of BRETONNEAU, were all tried but none of them seemed to answer so well as the nitrate of silver; every application of it was followed by a considerably increased discharge from the parts to which it was applied, thus relieving the engorgement of the blood vessels and frequently promoting the detachment of large portions of false membrane to the great relief of the patient. In all the cases whenever the circulation showed a disposition to give way, stimulants such as carbonate of ammonia, brandy, quinine and the like were resorted to. Most of the cases were seen by Drs. DAVIS, WILEY and WHITTIER, none of whom had seen the disease before. I regard it when complicated with croup as the most formidable disease I have ever witnessed, not having seen one recover after the occurrence of this complication. In giving this very imperfect sketch of Diphtheritis it is with the hope of eliciting an article from some one who may be able to give a more successful mode of treatment than I, from my limited experience, have given, and if I succeed in this my highest anticipations will be realized.

Review.

ART. IV.—BIBLIOGRAPHICAL NOTICES.

History of the Epidemic Yellow Fever at New Orleans, La., in 1853, by E. D. FENNER, M. D.

Tableau of the Yellow Fever of 1853, *with Topographical, Chronological and Historical Sketches of the Epidemics of New Orleans, since their origin in* 1796, *illustrative of the Quarantine Question*, by BENNET DOWLER, M. D.

Such are the titles of two very interesting papers, a synopsis of which we have thought might be acceptable to the readers of our Journal.

Dr. FENNER is an earnest and honest worker; his past and present labors clearly prove this; he not only works himself, but induces his professional friends, within the extensive range of his influence, to work with and for him. The paper now under consideration, is a plain and unostentatious narrative of the facts and circumstances attending the epidemic of 1853; these facts and circumstances have evidently been collected with uncommon care and industry, and are set forth with a simplicity, candor and force well calculated to make an effective impression upon both the professional and general reader. Such is the purpose of Dr. FENNER. The Quarantine question seems yet to be a mooted one with the people, and to some extent with the profession of New Orleans; the history of Dr. FENNER, though altogether truthful and impartial, is strongly opposed to all quarantine regulations, and is so fashioned as to lead to a like conviction in the minds of his readers.

The *Tableau* of Dr. DOWLER is a more elaborate production, more ambitious in style, more ostentatious of learning, evidently designed by its marginal index as a work of reference for future historians and students of Yellow Fever, not limited to the epidemic of 1853, but sketching all the epidemics which have visited New Orleans since 1796, and epidemics generally; it is equally hostile with the paper of Dr. FENNER, to all quarantine regulations, which are vigorously assailed by the triple battery of fact, reasoning and ridicule.

After some very just prefatory remarks upon the culpable indifference manifested by the people and city authorities of New Orleans, in regard to the local conditions favoring the development of Yellow Fever, during the existence of an epidemic influence, the history of Dr. FENNER is arranged into a number of separate parts, which in the aggregate comprehend the entire subject.

The first division has reference to the meteorology of New Orleans, a branch of the subject of great interest in the estimation of many, in regard to the etiology of Yellow Fever. Dr. FENNER procured his meteorological tables from the register of Dr. E. H. EARTON, a member of the Sanitary Commission and very accurate in his observations; these extend through all the months of 1853

up to October. The calculations are given in detail, and lead to the following general conclusions on the part of Dr. FENNER.

"The winter was quite cool and dry, but without any very cold weather. I did not see ice in the open gutters of the city, nor was the ground frozen in the heart of the city."

"The spring was quite variable; alternately hot and cold, and rather dry. Vegetation *remarkably backward.* From the 12th to the 20th of May, the days were *very hot*, whilst the nights were so cold as to render one or two blankets necessary to comfort. The thermometer rose to 88° which is within 1° of the highest point in July. On the 21st there was a sudden change, the weather becoming quite cold. This continued for two or three days; and it was about this time, as well as I have been able to ascertain, that the few cases of Yellow Fever appeared in the city."

"The summer was hot, though not unusually so. It will be seen that the *average* of the thermometer was above 79°, which some contend is necessary for the prevalence of yellow fever as an epidemic. The summer was likewise *quite wet*, though not as much so as others in which there was not so much Yellow Fever."

The meteorological tableau of Dr. DOWLER contains some very remarkable facts interesting to those who recognize a high temperature as one of the most important of the appreciable conditions of yellow fever.

"The most remarkable feature in the weather of the summer of 1853 is that of the diminished heat in the whole tier of Southern States bordering on the Gulf of Mexico, in which yellow fever prevailed, compared with the Western, Middle and North-eastern portions of the Republic. L. BLODGET, Esq., in charge of the Meteorological Department of the Smithsonian Institution, in an able paper, 'on the climatic conditions of the summer of 1853, most directly affecting its sanitary character,' an official report for June, July and August, from ninety meteorological stations from Canada to Florida and Texas, shows that in the fourth week of June, the maximum heat from New York to Savannah, gave an average of 95°. Now the corresponding week in New Orleans gave, according to Lillie's tables for the corresponding week, only 92° as the mean maximum, and throughout the whole epidemic, the average, never for any week, equaled that of the above mentioned central zone, where no yellow fever appeared. The average maximum temperature of the week ending August 26th, in New Orleans, was 91°, while the mortality was the greatest, amounting to 1.667, or more than 238, as the average per day, the temperature averaging one degree more than that of the week ending Sep.

tember the 15th, during which the mortality was only 411, averaging less than 59 per day. The average maximum temperature of the week ending October the 22d was 82°, two degrees more than that of the preceding week, though the number of deaths did not differ more than three for that period."

"It was not until June that the yellow fever showed itself even in the sporadic form to any considerable degree—the week ending on the 30th of the month, gave as the average of maxima 92° in New Orleans. Now, Mr. Blodget's tables will show that on and about the day aforesaid, the maxima temperatures were as follows at the places indicated where yellow fever did not show itself:—Alexandria, Virginia, 95°; Knoxville, Tennessee, 94.4°; Oberlin, Ohio, 95°, 17th 97°; Baltimore, 92.3°, 22nd 96.2°; Camden, South Carolina, 97.6°; Sparta, Georgia, 97°; Eutaw, Alabama, 101°, (the day before 104°); Lebanon, Tennessee, 95.90°; New Harmony, Indiana, 28th, 97.5°; Bloomfield, New York, 21st, 95.5°; Philadelphia, 95°, 20th, 97°; Brooklyn, Michigan, 21st, 97°; Pouthney, Iowa, 20th, 97°. On the other hand, many Southern towns were comparatively cool—those which escaped, as well as those which suffered from yellow fever. Jacksonville, Florida, on the last day of June, 84°, Pensacola, 85°. Again, compare the 15th of August,—Smithsonian Institution, 91°, (the 14th 64°,); Alexandria, Virginia, 82.3°; Culloden, Georgia, 82.40°; Austin, Texas, 82°. This period, including the preceding two weeks and the week succeeding, was the hottest part of the season in New Orleans, the maximum ranging from 93° to 94°, being much greater than that which attended the invasion of the epidemic. The week ending the 28th of July, gave an average of 87°, although the mortality at that time, from yellow fever, fell but little short of 1400 during the month."

"If we compare the summer heat, (June, July and August,) of the yellow fever zone, with Northern latitudes, where yellow fever did not appear, it will be found that even the mean temperatures of the entire hot season correspond very nearly in many instances; the mean of New Harmony, Indiana, for June, 78.3°, nearly the same as Pensacola, which is 80°; Baltimore, 77.7°; Savannah, 79°; Lebanon, Ky., 79.5°; Camden, S. C., 79.3°; Danville, Ky., 79.3°; Mount Vernon, Ohio, 78.9°, agreeing within an inconsiderable fraction with Cedar Keys, Talahassee, Pensacola, and Jacksonville, (78.9°) in Florida, and Eutaw, Ala., Austin, Texas, and other places."

"The quantity of rain which fell in New Orleans in July, August and September, amounted to 16.81 inches, nearly two-thirds of which fell in July, which is usually the most rainy month in New Orleans, nearly one-third fell in the next month, leaving but the fraction of an inch for the latter, which, with the month of October, is the dryest season of the year."

"On comparing July and August, the two great epidemic months in New Orleans in 1853, it will be seen that there was nothing peculiar—nothing that can account for the epidemic in regard to the quantity of rain, which was in some places greater or less than in regions free from the fever, and sometimes similar. In these two months there fell 16.81 inches of rain in New Orleans; at West Point, N. Y., 18.28; at Richmond, Mass., 14.235; at Montreal, 10.191; at Philadelphia, 9.37; at Richmond, Va., 8.63; at Ann Harbor, Michigan, 5.06; at Bedford, Pa., 3.877; at Sanannah, 14.682; at Jacksonville, Florida, 10.1; at Pensacola, 4.078; at Cedar Keys, Florida, 15.1; Eutaw, Alabama, 14.739, &c."

From these facts, in regard to which Drs. Fenner and Dowler for the most part concur, it will be seen that there was nothing very peculiar in the meteorological condition of New Orleans explanatory of the epidemic of 1853, nothing certainly to account for its unusual malignity; the cause of both must be sought in other and possibly more obscure conditions. While Dr. Fenner states in general terms that the season was a hot one, he also states that it was not distinguished by this feature from other seasons which were exempt from epidemic yellow fever. From Dr. Dowler we learn that instead of excessive temperature, the most remarkable characteristic of the season was the *diminished* heat in all the Southern States bordering on the Gulf, in which the yellow fever prevailed.

From both historians we learn that there was nothing notable in the amount of rain; neither an excess nor a deficiency; nothing which had not been observed during seasons when yellow fever did not appear. Dr. Dowler dwells somewhat specially, and in detail, upon this point, for the reason that "writers often most pertinaciously argue that yellow fever is owing to rain, when a rainy season and an epidemic happen together, as in 1839, when during an epidemic, it rained almost every afternoon for nearly two months. On the other hand, when an unusual drought and a severe epidemic prevailed in 1837, it was argued in like manner, that the absence of rain for a like period, (with the exception of a few showers) was the source of the evil."

The second division of Dr. Fenner's history is devoted to the sanitary condition of the city. According to Dr. Fenner, when the yellow fever appeared in New Orleans in 1853, the sanitary

condition of all parts of the city was worse than he had ever known it to be; this statement is founded upon personal observation and is substantiated by the testimony of the different newspapers of the day, which earnestly invoked the attention of the public authorities and of the citizens to the subject. Dr. FENNER remarks, "that when this pestilence broke out, the condition of the city in respect to *cleanliness* was so bad as to be an object of public notoriety. Indeed, it was in such a state, that if it had given rise to Egyptian Plague instead of yellow fever, it should not have surprised any one. The only surprising thing is, that with so much filth of all kinds as is always to be found in this city, we do not have an epidemic every year. The fact that *we do not*, has even led to the public expression of the strange opinion that the public filth of the city, instead of *originating* yellow fever, absolutely *protects* us from it in no small degree."

Dr. FENNER has long been a most efficient advocate of sanitary reform in New Orleans; he considers the bad sanitary condition of the city, as one of the most powerful of the localizing causes of the various forms of fever more or less constantly prevailing there; he confidently anticipates a very great mitigation of all of them, and possibly the extermination of some of them, by an efficient system of sanitary measures. In reference to yellow fever he says, "time was when this disease was unknown here. From the best information I can obtain, New Orleans was in existence *three-quarters of a century* before the first epidemic of this disease prevailed here, and it is only within the present year that it has prevailed over the large plantations within sight of the city. Is it not possible to restore the sanitary condition that existed before this disease prevailed here? Many cities and towns have been severely scourged by yellow fever for successive years, but finally got rid of it."

In connection with his strictures upon the bad sanitary condition of New Orleans, Dr. FENNER takes occasion to administer a just rebuke to the editors of the daily journals, who, for the purpose of temporarily promoting the commercial interests of the city, studiously endeavor to conceal or suppress the true state of the health of the place, and thus induce many persons to remain until they are exposed to imminent danger for want of correct information.

Dr. Fenner comments more particularly upon the condition of streets, alleys and vacant lots, the exterior and more palpable sanitary defects of the city. Dr. Dowler, in his Sanitary Tableau, while concurring with Dr. Fenner in regard to these, is more special in his condemnation of the style of building in New Orleans; how this "has so long escaped the legislator, the grand jury, the landlord and the sanitarian, is marvellous. About ninety in every hundred houses, even in the richer portion of the city, are constructed in a manner that must be condemned in any climate, but in none so much as in this city, depressed as it is below the high water mark of the river everywhere, and in the rear, nearly on the sea level. The lower floor, which rots about four times in ten years, in a great majority of the houses, especially the stores, rests on the humid soil, sometimes at a lower level than the streets, no air being admitted underneath."

"Physicians in visiting the poor, especially in depressed portions of the city, must have often found the flooring of houses floating, and sometimes, after rains, quite covered with a water too filthy and offensive for description—laboratories for generating carbonic and other deadly gases, predisposing to disease and rendering recovery from any kind of sickness tedious, too often impossible."

In this connection, Dr. Dowler offers some advisory suggestions as to the best method of draining the city; he considers "effectual underground drainage scarcely a physical possibility in New Orleans—if possible, the expense could hardly be paid by the treasury of the United States, and if accomplished it would prove to be an intolerable nuisance." The position of New Orleans is such as not to afford soil elevation and descent sufficient for the successful working of subterranean sewers. "One heavy rain in New Orleans would change this abstract theory into a concrete mass of filth, which would fill these subterranean canals, which, lying as they must, below the level of the river, and even below the level of the sea and lake, would send forth emanations, strong, but not wholesome."

According to Dr. Dowler, the only feasible mode of draining New Orleans is by a well-devised plan of surface drainage; he thinks that "by adopting the experimental instead of the verbal

or paper method of drainage, and using a moderate amount of common sense, much digging, and a good deal of capital, just as the Dutch have done in Holland, by which the land has been wrested from the dominion of the sea, New Orleans and its environs as far as Lake Pontchartrain, might be changed from mosquito lands and putrifying sheets of water, to horticultural, pasturage and meadow lands." Dr. DOWLER prefers surface to underground drainage for all cities; while the position of New Orleans forbids the successful application of any other system, the object aimed at is more likely to be efficiently accomplished by surface drainage, even in those cities whose position is altogether favorable to underground drainage. "A gentlemen recently from Paris, and perhaps, the ablest quarantinist in New Orleans, informs me that in Paris underground drainage, with soil, elevation and declivity so vastly superior to New Orleans for this purpose, is mischievous. The Parisians find that the filth of the city accumulates in these subterranean sewers so as to send forth the most offensive and deleterious emanations. Hence, they prefer, after costly experiments, surface drainage, and wash off the filth into the Seine." The experience of many other cities accords with that of Paris; the whole argument in favor of surface drainage is briefly stated by the gentleman from Paris.

The commencement of the epidemic is dated by Dr. FENNER as early as the 23d of May; he observed the first case of *black vomit* on the 28th of May, in the wards of the Charity Hospital. This date is much earlier than that of other epidemics which have visited New Orleans.

The first cases were among the crew of the ship "Augusta," a vessel which arrived on the 17th of May, *direct from Bremen.* The fact that the disease originated among the shipping was calculated to suggest the suspicion that it was imported *from abroad*, and to the elucidation of this very important point, important in reference to future action upon quarantine measures, DR. FENNER addressed himself with great patience and industry. He at once commenced a scrutinizing investigation, knowing how important it was to ascertain then all the facts and circumstances, and not to trust to a doubtful search for them after the lapse of even a few months. He learned that the "Augusta" was out from Bremen

fifty-two days, and passed on the South of Cuba, not approaching nearer than thirty-five or forty miles of that island. She brought over two hundred and thirty European emigrants, who enjoyed good health on the voyage, having only lost two children of diarrhœa. The emigrants remained but one day in New Orleans, and then proceeded up to the West.

The "Camboden Castle," direct from Kingston, Jamaica, where the yellow fever was prevailing, was towed up from the mouth of the river in company with the "Augusta." At Kingston the "Camboden Castle" lost her captain with delerium tremens, and seven of her crew with yellow fever. *Not a single case of yellow fever* occurred on her during her passage from Kingston to New Orleans, nor while she remained in this latter port, up to the 8th of June. This fact is interesting as bearing upon the possibility that the cases upon the "Augusta" might have been due to the free communication which took place between these vessels from the Balize to New Orleans; the entire exemption of the "Camboden Castle" from yellow fever, however, precludes this supposition.

The first case of yellow fever observed by Dr. Fenner, the one already referred to, was a passenger on the ship "Northampton," which arrived on the 10th of May, from Liverpool, passing fifty miles to the north of Cuba. This case left the ship upon her arrival, with the other passengers, and was not attacked until the 23d. The captain states that during his entire stay in New Orleans he had but one case of fever on board his ship, and that was a boy who was attacked on the 10th of June and recovered. After sailing on the 14th of June, the mate and captain were seized with the fever. All the facts of these cases and particularly of the first, are opposed to the supposition that the fever was imported by the "Northampton," or originated in any cause connected with that ship.

A number of other vessels are cited by Dr. Fenner, upon which or in the vicinity of which, cases of yellow fever occurred, but in every instance, he ascertained very clearly that they were free from this form of disease before their arrival, and that most of them were from ports in which yellow fever did not exist.

The most searching and important inquiry satisfied Dr. Fenner that the importation of the disease, by any of these vessels, was

not true; he remarks, "it is often referred to as *a fact* that the first cases of yellow fever in this city *always occur among the shipping*. This is *not true*, as I have shown in my previous accounts of yellow fever in this city. In short, it is evident from the facts within my knowledge that the *shipping* has suffered much worse than the city from the contact."

From the shipping, Dr. FENNER extended his investigations to other localities in which the earlier cases occurred. By a comparison of dates, he found that the disease sprung up almost at the same time, in no less than *ten different places*, and these wholly disconnected with each other, and most of them so far removed from the vessels in which the very first cases occurred, as to forbid the supposition of intercommunication. "The localities designated, circumscribe *almost the entire outskirts of the city*, at the same time *dipping pretty far in*. Now, if any one can trace any sort of connection or communication between the first cases of the disease as they appeared in the different localities I have pointed out, or any thing like the *gradual* spread of an *imported contagion or infection from one or more points to the region around*, I can only say, it is more than I have been able, satisfactorily, to do."

It was currently reported that the yellow fever of 1853 was imported into New Orleans by vessels from Rio Janeiro. Dr. FENNER ascertained from unquestionable and authoritative sources that "nearly all the vessels that arrived from Rio, after the 1st of April, had suffered more or less from yellow fever, after leaving that port, but that *none of them had brought cases to New Orleans*." Special mention is made of a number of these vessels, some of which arrived *long after* the disease had appeared in New Orleans. The ship "Adelaide" was reported to have brought the first cases; "upon careful inquiry," reports Dr. FENNER, "I find that this ship has not been here this year at all." The ship "Evangeline," against which the same accusation was made, did not arrive until the 10th of June, after a number of cases are known to have occurred. It is a singular circumstance that the people of Rio reciprocate the charge and allege that the fever was introduced among them by a vessel from Philadelphia. A writer in the New York Commercial Advertiser, in an account of the yellow fever at Rio

Janeiro, says that "the same fever pervaded the whole Brazilian coast in 1850. At Bahia, it was traced to a vessel from New Orleans, and believed by many to have been imported in her. With equal propriety it might have been said to have been imported into Rio from Philadelphia. Both would be absurdities, as the vessels left the United States in the winter season, and never had any sickness on board, until after their arrival." Dr. FENNER has clearly and fairly made out the same case in regard to the supposed introduction of the fever, by vessels arriving in New Orleans in 1853.

A fact of great interest, in its sanitary relations, is established by Dr. FENNER's inquiries into the localities in which yellow fever first most extensively and severely prevailed. He remarks, that "it is worthy of particular notice that the *epidemic prevailed in the unpaved, and of course, least improved parts of the city all around, long before it did in the central and best improved parts.*" "I am not prepared," he further observes, "to maintain that the putrifying filth which is to be found to a great extent in this city at all times, is *the sole cause* of yellow fever; for if it were, we should certainly have an epidemic every year; but I do believe it is almost a *sine qua non*, and that if it were effectually removed, and the whole city well paved, it would effect more towards *the prevention* of yellow fever here than any thing that can be devised."

In the disposition manifested so constantly by yellow fever to display itself primarily and most severely in the outskirts and unimproved portions of a city, we perceive a strong analogy to the course ordinarily pursued by intermittent and remittent fevers and other forms of disease recognised as of miasmatic origin; the favorite seats of these are precisely the same localities, and they steadily recede and ultimately fade away before the advancing improvements of a city. Dr. FENNER thinks the *fever-cause* of yellow, remittent, and intermittent fever identical in all, producing the different types by merely a modification of its intensity. "The general remote cause of all the endemic fevers seen here, which, in its most virulent or powerful state, produces an epidemic of yellow fever, gradually undergoes modification in the progress of time; it becomes less virulent or powerful, and in propor-

tion to the degree of this change, will it produce the milder types of fever. This position is illustrated by the remark of a highly intelligent practitioner of the fourth district, whom I met about the 10th of October. On being asked whether he saw much of yellow fever at that time, he replied "that he saw a good deal of fever, but he hardly knew whether it was *yellow fever* or not." I asked him how the cases looked, if they became *dangerously ill or died?* He said, "they then generally looked precisely like yellow fever." Another professional friend in the same district told me a short time afterwards that he had just been astonished at seeing a case of intermittent fever terminate in *fatal black vomit.* Such observations show that the prevailing *fever cause*, which in August produced *yellow fever* in nine-tenths of the cases that occurred, had become so much weakened in October as to produce mostly the remittent and intermittent types; yet the relationship between them was still so close, that if the latter were not promptly cured, they ultimately presented the worst features of the former."

Dr. DOWLER, in his Geographical Tableau, opposes the opinion that marsh-miasma is concerned in the causation of yellow fever, and adduces a number of pertinent illustrations afforded by the epidemic of 1853, adverse to this doctrine. On this point it may be interesting to quote rather fully from the Tableau. "As immense importance has always been attached to the topography of yellow fever, which has been generally attributed to swamp-exhalation, it will be necessary to take a closer view."

"The elevated zone called the bluffs, a broken diluvial plateau, touching the Lakes Pontchartrain and Maurepas on the South, where it is most depressed, running North between the Pearl and Mississippi rivers; the Eastern shore of the latter for hundreds of miles, with some interruptions, is overlooked by these impending terraces, which sustain forests of colossal magnolias, pines, oaks, liquidambars, &c.,—a platform which sundry learned medical writers have indicated as a secure retreat from yellow fever, although neither the past nor the present justify this theoretical view. The epidemic of 1853 raged fully as much in this region as in the most depressed plains among the vast cypress swamps and salt-water marshes of littoral Louisiana. The epidemic was most fatal in this region, from its Southern border upon the Northern shore of Lake Pontchartrain at Madisonville, Mandeville,

Louisburg and Covington, to the higher lands of Baton Rouge, Clinton, Port Hudson, Jackson, Bayou Sara, St. Francisville, Fort Adams, Natchez, Grand Gulf, Yazoo and Vicksburg, not sparing the little villages of the piny forests."

"Thus the towns of Louisiana, Alabama, and Mississippi, States elevated from twenty to four hundred feet, and more, situated on the tertiary formation, often in the pine lands, remote from swamps, being high, dry and clean, suffered more, in many instances, than New Orleans situated, as it is, upon the recent alluvium or newer pliocene, touching the river in front and dipping into the stagnant swamps of the cypress basin in the rear, and intersected everywhere with filthy gutters, sewers, ditches or canals. The elevated zone of pine woods in Northern Louisiana, and elsewhere in the adjoining States, forms a striking contrast to the depressed plains, cypress basins, and marshes of the Southern delta. The epidemic of 1853, like previous ones, goes to prove that marsh miasma is not the specific cause of yellow fever, as is generally supposed. The very towns which the lamented Drake recently designated, on theoretical grounds, as safe retreats from yellow fever, have suffered most from it."

After citing a number of towns in which yellow fever appeared in 1853, some in elevated and some in depressed situations, Dr. Dowler concludes his topographical sketch with the deduction "that it is evident that *altitude* did not modify the epidemic of 1853. The general opinion that yellow fever appears only in depressed places, or marshy plains, is contradicted by innumerable facts in America and Europe."

Dr. Dowler, whilst denying to marsh miasma the position of a generating cause of yellow fever, offers no substitute; he thinks that the present state of medical science cannot offer any satisfactory explanation of the "*Ens Epidemicum.*" "A humiliating but true confession this. Heat, rain, moisture, swamps, *vegeto-animal* decomposition, contagion and numerous other alleged causes are unsatisfactory and inadequate, as might be shown by travelling over hundreds of inconclusive and contradictory volumes filled with special pleadings, diluted logic, theoretical biases and irrelevant facts.

"It is most certainly the duty of every writer on yellow fever to explain the cause of it if he can, but it is equally his duty not to sin against the decalogue of logic, any more than against the decalogue of Moses. Fortunately, the *conditions* if not the *causes* of yellow fever are to a considerable extent known; for example,

it is known to be connected, no matter how, with the warm season of the year, with unacclimated constitutions, with aggregations of people in towns and villages, etc. It rarely attacks rural populations unless they crowd together so as to become virtually towns."

"A correct appreciation of these conditions is next in importance to the discovery of the cause of yellow fever—probably, the former may prove after all to be more important: for the discovery of the cause by no means warrants the conclusion that it is necessarily a removeable or a remediable one."

The yellow fever of 1853, though existing in a sporadic form for a longer time, prevailed as an epidemic only *two months*. Dr. FENNER says, "this again corresponds with the observations of the past. We have more or less yellow fever *every year*; but after a constant residence here of twelve years, I must say, that I have never known it prevail *to an epidemical extent* for a longer period than *sixty or seventy days*."

Dr. FENNER denies the correctness of the prevalent popular opinion. "*that an epidemic can alone be extinguished by frost.*" He says that he demonstrated this error in his histories of the epidemics of 1847 and '48. "In 1847 the epidemic ceased long before the appearance of frost; yet sporadic cases were seen to a considerable extent to the end of the year. On the present occasion, the disappearance of the epidemic was published by the Board of Health on the 13th of October, whilst the *first frost* was announced on the 25th of October and that was only observed on the outskirts of the city. On the 31st there was a much heavier frost, but by this time, a large number of persons had returned to the city. It is true that some of them were attacked with the fever as before stated, but the cases were generally mild and easily managed."

Whilst the histories of Dr. FENNER prove that yellow fever often ceases to exist as an epidemic before the appearance of frost, the history of Dr. DOWLER presents several instances in which the epidemic continued to progress unmodified by the occurrence of frost. "About the 25th of October a white frost appeared, for a few nights, at many of the interior towns of Louisiana, which was received as the harbinger of returning health, but which did not, in a marked degree, arrest the march of the epidemic. Warm weather, however, soon returned, and has continued to the present

(the third week of December,) but this did not revive the epidemic in places where it had declined, as in New Orleans and in many other places." "In the town of Clinton, in the Parish of West Feliciana, lying between the Mississippi and Pearl rivers, one hundred miles Northwest from New Orleans, the epidemic began about one month before this frost, but at the latest dates, (Dec. 16) it had not yet disappeared, seventy-five having died out of three hundred and fifty or four hundred who did not fly from the town, as did about one thousand persons."

Our notice of the papers of Drs. Fenner and Dowler has extended thus far, without comprehending more than a moiety of the valuable facts which they contain. We hope to complete our abstract in a future number. L. R.

Art. V.—VITAL STATISTICS OF KENTUCKY.

We have before us the "First Annual Report relating to the Registry and Returns of the Births, Marriages and Deaths, in Kentucky, in 1852," and we have examined its tables with great interest. The profession is indebted for the report to Dr. Sutton, of Georgetown, whose unwearied devotion to this subject entitles him to the thanks of every friend of medical science. The State Auditor, Thomas S. Page, Esq., the duties of whose office, it has been computed, would occupy a less efficient man twenty-three hours and forty-five minutes every day, finding that it would be impossible for him to digest and arrange the Assessor's returns in the time prescribed by law, very wisely determined to procure the services of Dr. Sutton, under whose supervision and direction the report has been prepared. Whatever imperfections may be found in the report are chargeable to the Assessors, some of whom were far from being careful in making out their returns, and among

these, we are sorry to say, is the officer who prepared the schedule for the populous county of Jefferson. But the system is new in Kentucky, and it was not to be expected that it would work perfectly at the start, both physicians and public officers requiring time to become familiar with their respective duties. We have said that the deficiencies in this report are due to the Assessors, but we are not sure that we should not have been nearer the truth if we had taken the chief blame to the members of our profession. As it is, Dr. Sutton believes "the returns are more full than those produced by any State heretofore at the commencement," and we are quite confident they will be more so in future.

The population of Kentucky in 1850 was very nearly a million; in 1852 the births amounted to 25,907, the deaths to 13,848, being an excess of births over deaths of 12,058. The mortality as distributed over the several months of the year was least in February, 643, and at its height in August, when it reached 1805. It then declined through the following months. As to age, 4,982, or more than a third, died before reaching five years; between 5 and 10 years only 1,014 died, and between 10 and 15 only 700, after which the mortality began to mount up, being for the next five years, or among those from 15 to 20, over 800, and for the next ten years, 20 to 30, nearly 1500. Of persons from 40 to 50, 650 died, from 50 to 60, 551, from 60 to 70, 485, from 70 to 80, 418, over 80, 310. Twelve are reported as having passed 100, and one, a white female, as having attained 110 years.

In regard to the births, Dr. Sutton says:—

"Of these 25,734 whose sex is stated, 13,625 were males, 12,109 females—giving the very remarkable proportion of 112.52 males to 100 females. If there is any instance upon record of so large a proportion of males in a population of a million, I do not know where it is. In every month in the year there was a majority of males. But in June this majority was only 3 in 1,891 children born, whilst in December it was 209 in 2,691 births, or 116.84 to 100.

"The excess of male births is very remarkable in both the plurality cases and in the still-born. Of 230 twins whose sex is stated, 142 are males, 88 females, or 161,36 males to 100 females. Of 785 still-born, whose sex is stated, 481 are males and 304 females, or 158.22 males to 100 females.

"No case of triplets is recorded in the whole State. One woman (colored) is reported as having borne a child at 11 years.

"The still-born certainly appear to be in large proportion—no less than 3.09 per cent. of all births. This may be so; yet there is reason to believe that it is too large, because a number of children are returned as still-born who have names. There is reason to believe that a number of assessors mistook the precise import of the terms 'alive' and 'dead,' and returned as dead those which were dead at the time of making the assessment."

Respecting the relative mortality of different counties he remarks:—

"We find the mortality much greater in some portions of the State than in others. Muhlenburg, Union, and Jefferson report the smallest mortality, viz: one in 817, 391, and 291, respectively. It must be observed, however, that the schedules from each of these counties bear very strong evidence of having been very negligently taken. Hickman, Bourbon, Hart, Oldham, and Marshall, have returned the largest mortality, varying from one death in 34.22 to one in 43.54. As might reasonably have been expected, counties have changed their position from that which they occupied in the census of 1850. Fayette, which then exhibited a mortality much larger than any other county in the State, now exhibits a mortality less than one per cent.; and Hickman, which then was less than one per cent., has now the greatest mortality, nearly three per cent."

The Causes of Death.—We quote Dr. SUTTON's recapitulation under this head:—

"In examining table X, we shall be forcibly struck by the fatality occasioned by class 1, ZYMOTICS. This gives a mortality of 56.43 per cent. of all ascertained causes of death. This class is large in all countries, but very rarely assumes the magnitude here displayed. In Massachusetts it has ranged from 27 to 38 per cent.; the average for 10 years being 30.42 per cent. This class contains diseases which it is thought can be very much guarded against by proper sanitary regulations, and therefore ought not to be permitted to produce such an awful mortality.

"At the head of the alphabetical list in this class we have *Cholera*, which is represented by a mortality of 722, or 6.94 per cent. By running the eye along the list of counties, it will be seen that this disease prevailed to any considerable effect in only a few counties. A few cases of cholera morbus are included under this head.

"Next comes *Cholera Infantum*, which twenty or thirty years ago was a great outlet of infant life. Of late years, the mortality from this cause has very much diminished; but 135 cases, or 1.30 per cent. of deaths, is ascribed to it.

"*Croup* occupies a more prominent place, having caused 461 deaths, or 4.53 per cent. of deaths.

"*Diarrhœa* occupies but little space; but *Dysentery* stands forth in bold relief—no less than 1,923, or 18.47* per cent. having died of it.

"Of *Fever*, intermittent, remittent, and continued fevers, the last of which contains typhus and typhoid fevers, we may speak in a group—continued fever having produced a greater mortality than any disease, except dysentery; and if we include (what probably enough belong there) all entries under 'fever' simply, we have no less than 13.09 per cent. of deaths from all ascertained causes. Remittent fever, which includes all entries under the heads of bilious fever, congestive fever, and one of yellow fever, gives a mortality of 2.07 per cent.

"The fevers above mentioned, with cholera, cholera infantum, diarrhœa, and dysentery, constitutes the great outlet of life—affording as they do 43.27 per cent. of all deaths. It is generally admitted that these diseases are dependent upon the same causes, more or less modified; and further, that these causes are very considerably under the control of man. Why then should they not be looked to and obviated?"

Art. VI.—A TREATISE ON THE ECLECTIC SOUTHERN PRACTICE OF MEDICINE.

By J. Cam. Massie, M. D. Philadelphia; Thomas Cowperthwaite & Co.; pp. 716. 1854.

When we saw it announced, some time ago, that Dr. Massie, of Texas, was engaged in the preparation of a work on "Southern Practice," we felt not a little concerned for the character of the profession. We had seen some reports of cases from the pen of this gentleman in the *New Orleans Journal of Medicine*, and had otherwise previously obtained some knowledge of his fitness

* The per cent. of each disease was calculated before the returns from Letcher county came in. This slightly increased the per cent. of dysentery, but did not sensibly affect any other disease.

for such a task. We confess, that the idea of his putting himself forward as the exponent and representative of *Southern Medicine*, was to us a most unwelcome one. We could see in the project nothing but evil to the profession and to the public. We knew that the experience, the extended observation, the reading, and habits of mental application necessary to the execution of such a work in a useful and creditable manner, were all wanting in this writer. We expected, if he carried out his design, to see a book, made up more with the scissors than the pen, abounding in all sorts of crudities and absurdities, full of old cumbrous recipes and old exploded notions. In no respect has he disappointed us save one, and that is in making his book a good deal worse than we expected it to be. We cannot say that in regard to medical science it falls below our expectations, utterly destitute as it is of all pretensions of that sort; but the author has imposed upon it a gratuitous degradation in making its morality as bad as its science. But he has been honest in one thing; he calls his production by the right name—the "*Eclectic* Southern Practice." We rejoice that it is in a work styled "*Eclectic*," and not in a work emanating from scientific medicine, that regular *dram-drinking* is inculcated, and the young men and old men of the South are instructed in the method of committing fornication without the risk of contracting the diseases incident to promiscuous sexual intercourse. We thank Dr. Massie for calling his book by its true title, which releases us from all obligation to bestow upon it any further notice, and, what is of far greater importance, will disarm it, to a great extent, of the power to do mischief. He says he meant to make "a book which would be a valuable aid to every father of a family;" but we dare believe there are few fathers anywhere, whatever their habits, who would be willing that the eyes of their unsophisticated sons and daughters should fall upon some of his obscene pages. We trust that it will find its way into few families, and can see no reason why it should find a resting place upon the shelf of any physician. There is but one proper resting place for such a book—that *limbo of vanity* in which all the bad things and all the foolish things of the press are sure, sooner or later, to be swallowed up.

Editorial Department.

KENTUCKY STATE MEDICAL SOCIETY.

In our last number we alluded briefly to the third meeting of the Kentucky Medical Society, held at Lexington, in October, and to the fact of a deficiency in its revenues. The Secretary has furnished us with some memoranda of the meeting, and addressed to the members of the Society a circular letter, which we publish in the hope that it may cause the treasury to be replenished.

At the Lexington meeting, which took place on the 19th of October, the following reports were read;—on the *Medical Literature of Kentucky* by Dr. L. P. Yandell; on *Improvements in Surgery*, by Dr. J. B. Flint; on the *Relations of Geology and Disease*, by Dr. Robert Peter; on the *Statistics of Hernia*, by Dr. S. B. Richardson; on the *History and Mode of Management of Prisons and Penitentiaries*, by Dr. W. C. Sneed; on *Medical Ethics*, by Dr. R. C. Hewitt; on *Public Hygiene*, by Dr. T. S. Bell; on *Medical Grievances in Courts of Justice*, by Dr. H. Wible; on *Epidemic Erysipelas*, by Dr. W. T. Owen; on *Vital Statistics*, by Dr. W. L. Sutton.

Objections were made to the report of Dr. Flint, on the ground that he had availed himself of the opportunity afforded by an appointment of the Society to assail certain members to whom he was unfriendly, and on motion of Dr. J. M. Duke, of Maysville, the Committee of Publication was instructed to strike out all that part of the report which related to medical ethics. This led Dr. Flint to ask permission of the Society to withdraw his report, which was granted; but at a subsequent period of the meeting, at the suggestion of the President, Dr. Gross, the vote on the resolution of Dr. Duke was reconsidered, and it was voted to request Dr. Flint to hand his paper to the publishing committee.

On the first evening of the meeting an appropriate address was delivered by Dr. W. S. Chipley, the retiring President, to an audience of gentlemen and ladies. The tone, style, and sentiments of the address were worthy of the highest officer of the Kentucky Medical Society.

Dr. G. W. Bayless, of Cincinnati, and Dr. H. Kirby, of Mississippi, were invited to take seats in the Society and to participate in its discussions.

Dr. A. Clapp, of New Albany, Dr. J. F. Smith, of New York, and Dr. M. L. Linton, of St. Louis, were elected Honorary members of the Society.

The following gentlemen were elected officers of the Society for the ensuing year:

Dr. S. D. Gross, of Louisville, *President.*
Dr. Ayres, of Lexington, *Senior Vice President.*
Dr. Chambers, of Covington, *Junior Vice President.*
Dr. W. C. Sneed, of Frankfort, *Recording Secretary.*
Dr. W. H. Miller, of Louisville, *Corresponding Secretary.*
Dr. Monroe, of Frankfort, *Librarian.*
Dr. D. D. Thomson, of Louisville, *Treasurer.*

The following gentlemen compose the Committee of Publication:—Dr. T. G. Richardson, Dr. T. S. Bell, and Dr. John Bartlett.

The following gentlemen were appointed delegates to the American Medical Association, which meets on the 1st of May, in St. Louis:—Drs. Anderson, Chew, Thomson, Evans, Pilkington, Peter, Duke, Bradford, Ewen, Mattingly, Miller, Chipley, and Darby.

Several amendments to the By-Laws of the Society were adopted, among which are the following:—that the annual meetings of the Society shall be opened with prayer; that new members shall pay the initiation fee before being entitled to vote; and that no member shall be entitled to vote who has not paid the assessment which is to be fixed at each annual meeting.

The Chairmen of the various Standing and Special Committees for the ensuing year are as follows:

STANDING COMMITTEES.

Arrangements.—Dr. Preston, of Covington.
Practical Medicine.—Dr. Chew, of Woodford.

Improvements in Pharmacy.—Dr. J. L. Smith, of Louisville.
Vital Statistics.—Dr. John Swain.
Obstetrics.—Dr. L. Powell, of Louisville.
Medical Ethics.—Dr. Mattingly, of Bardstown.
Public Hygeine.—Dr. P. B. Drake.
Epidemics.—Dr. H. M. Bullitt, of Louisville.
Surgery.—Dr. F. Polin, of Springfield.
Indigenous Botany.—Dr. Donohoff, of Louisville.
Finances.—Dr. Hewitt, of Louisville.

SPECIAL COMMITTEES.

Medical Biography.—Dr. R. J. Breckinridge, Louisville.
Suits for Malpractice.—Dr. Spillman, Harrodsburg.
Relation between Disease and Particular Geological Formations.—Dr. Peter, Lexington.
Statistics of Lithotomy and Calculous Diseases.—Dr. Gross, Lousville.
History and Mode of Management of Hospitals.—Dr. Raphael, Louisville.
Results of Surgical Operations in Malignant Diseases.—Dr. T. W. Colescott, Louisville.
Placenta Previa.—Dr. H. Miller, Louisville.
Inflammation and Ulceration of Cervix Uteri.—Dr. W. H. Miller, Louisville.
Epidemic Dysentery.—Dr. Hynes, Bardstown.
Typhoid Fever.—Dr. J. Smith, Danville.
Statistics of Remedies in Disease.—Dr. L. Rogers, Louisville.
Scarlatina.—Dr. Evans, Mercer county.
Ovariotomy.—Dr. Bradford.
Comparative value of Remedies in Tubercular Disease.—Dr. Craig.
Substitutes for Quinine.—Dr. Chambers, Covington.
Spinal Disease.—Dr. Freeman.
Insanity.—Dr. J. R. Allen, Lexington.
Physiological and Morbid Effects of Alcoholic Drinks.—Dr. J. M. Duke, Maysville.
Injuries of the Skull and Brain.—Dr. Hardin, Louisville.
Therepeutical Effects of Anthemis Cotula in Disease.—Dr. N. B. Anderson, Louisville.
Water as a Thereaputic Agent.—Dr. Darby, Lexington.

Among numerous resolutions passed, the one relating to the publication of the transactions of the society, seems likely to remain a dead letter. On motion of Dr. Spillman, the Society resolved, that in future no Chairman of a Special Committee shall occupy more than an hour and a half in reading his report; and on

motion of Dr. Chambers it was resolved, that the Recording Secretary be directed to notify delinquent members that their names would be erased from the books of the Society, unless they paid their dues regularly. The following resolutions were also adopted:

Whereas the benefit resulting to the public, directly and indirectly, from the action and unwearied labors of the medical profession, are so numerous and important, that physicians are entitled to the utmost consideration and respect from the public; they ought to entertain a just appreciation of professional qualifications; to make a proper distinction between true science, and the assumptions of ignorance and empiricism; to afford every facility and encouragement for the acquisition of medical education, and instead of allowing the Statute Books to exhibit the anomaly of exacting knowledge from physicians under liabilities to heavy penalties for resorting to the means of obtaining it, they are entitled to the confidence, and ought to receive the patronage of the State; Therefore be it *Resolved*, That a Committee of five be appointed whose duty it shall be to memorialize the next General Assembly in reference to the passage of a law authorizing the publication of the Transactions of the Kentucky State Medical Society, and that 500 copies be furnished annually to the President for gratuitous distribution.

Resolved, That the Secretary, at an early day, as practicable, cause to be printed 150 copies of the above preamble and resolutions, and send one to each Senator and Representative elect in the Commonwealth.

Drs. Chew, H. Miller, Sutton and Mattingly were appointed the committee.

Resolved, That a Committee be appointed by this Society whose duty it shall be to memorialize the next session of the Legislature of Kentucky, to pass a law, making it obligatory on apothecaries and druggists, and all venders of medicine of every description to place a label on every article of patent medicines and nostrums, which label shall have written or printed upon it, the name of every article which enters into its composition, and the quantity of each, written in plain English.

Drs. Chambers, Drake and Small were appointed under this resolution.

On motion of Dr. Sutton it was *resolved*, That the nomenclature of diseases proposed by the American Medical Association be adopted by this Society.

The Society instructed the publishing committee to have printed 300 extra copies of Dr. Sutton's report on Vital Statistics, and to request the author to furnish an abstract for the newspapers of the State.

A sumptuous and elegant entertainment was provided for the Society by the Physicians of Lexington, which was properly appreciated by the members.

The Society adjourned on the 21st, after a session of three days, to meet at Covington, on the third Wednesday of October next.

We append the letter of Dr. Sneed.

To the Members of the Kentucky State Medical Society.

Gentlemen,

At the last meeting of the Kentucky State Medical Society a resolution was passed making it the duty of the Secretary to present each member of the Society with a statement of the amount of his dues, with the request that the same should be forwarded at as early a day as practicable, in order that the Committee of Publication might be enabled to contract for the printing of the last transactions of the Society.

I was further directed, by the same resolution, to strike from the list all such members as failed to comply with this order. If each member will forward the amount of his dues, the Society will be able to publish, at once, the valuable papers read at the last meeting.

Very respectfully,
W. C. SNEED, *Rec. Sec.*

THE MEDICAL PROFESSION.

If we credited all that the croakers say, we should conclude that our profession, at home and abroad, is in a very bad way. The English medical journals are full of complaints—Quackery is described as being everywhere prosperous in that realm; all the desirable places are filled with bad men, and all the good men are out of place; pretenders are growing rich, while the physicians of real merit are starving. And these grumbletonians point to America as the "paradise of legitimate medicine!" Their brethren on this side of the "great waters" must be amused. Here, where the profession of medicine is becoming every day more and more degraded; where the quacks have it all their own way; where "old fogyism" is triumphant, and "young physic" neglected, slighted, ignored—this the paradise of doctors! Truly, if

these things are so, there can hardly be a worse calling than our time-honored profession. But they are not true. Things might be better than they are, but they are not half so bad as these hypochondriacs represent them to be. Quackery is prevalent and pestilent, but it is not over-riding and over-shadowing legitimate medicine. Quacks are not getting all the good fees, though they are receiving too many. Medical science was never before making so sure and rapid progress, and it is establishing itself more and more securely in the confidence of men. The medical profession never held a higher rank among human avocations than it does at the present day, and was never entitled to a higher one. We do ourselves injustice by these exaggerated accounts of the success of quackery, and these complaints about the decline of the profession. "How comes it to pass," we know it was asked a long time ago, "that no man is contented with his lot?" Perhaps it is not well that we should be contented with our present state, for then we should not improve; but on the other hand we gain nothing by these sorrowful pictures which we draw of the condition of legitimate medicine, and which must be infinitely pleasing to the "irregulars."

CARPENTER ON ALCOHOL.

Dr. Carpenter has placed himself at the head of English physiologists by his various writings, and now is entitled to take the highest rank among the advocates of temperance. The volume before us is a temperance tract, and we are quite safe in saying that no work on that prolific subject was ever written with the same ability. As an exposition of the effects of alcohol on the human system, it is complete. All the branches of the subject are fully and most ably discussed. His argument is irresistible. No one can peruse his pages without giving a prompt and entire consent to his conclusions. His work is calculated to produce great good by its array of facts, and its high scientific character, and we are persuaded that we could not render a greater service to society than by promoting its circulation. It ought to be read by every physician. The author says that upwards of two thou-

sand of his professional brethren—some of them among the most eminent in England—have signed the following certificate:—

"We, the undersigned are of opinion: 1st. That a very large proportion of human misery, including poverty, disease and crime, is induced by the use of alcoholic or fermented liquors as beverages.

"2. That the most perfect health is compatible with total abstinence from all such intoxicating beverages, whether in the form of ardent spirits, or as wine, beer, ale, porter, cider, &c., &c.

"3. That persons accustomed to such drinks may, with perfect safety, discontinue them entirely, either at once, or gradually after a short time.

"4. That total and universal abstinence from alcoholic beverages of all sorts would greatly contribute to the health, the prosperity, the morality, and the happiness of the human race."

There are few physicians, anywhere, who would not assent to the truth of these several propositions; but what are physicians doing to enforce and disseminate such doctrines? The greatest of all the evils by which human society is afflicted is, unquestionably the immoderate use of intoxicating liquors, and of the depth and intensity of the evil no class of the community are as constant or as competent witnesses as physicians. Physicians, therefore, ought to be in the van of the temperance movement. We are proud to say that they have been the leaders of this great reform, and it affords us the most sincere satisfaction to record the name of Dr. CARPENTER as prominent among this body of philanthropists.

This book is a small one and very cheap, and temperance societies cannot more efficiently promote their cause than by diffusing its doctrines. Messrs. BLANCHARD and LEA have preferred new claims to the respect and thanks of the community by issuing it in its present form, placing it within the reach of every one.

PROFESSOR BRECKINRIDGE'S ADDRESS.

We have received from our friend, Professor R. J. BRECKINRIDGE, a copy of his valedictory address. The subject is *Medicine as a Science and an Art*, the claims of which to the respect and gratitude of men, in both its aspects, are clearly and ably set forth.

Without claiming to be perfect either as a science or an art, and, perhaps, with slender prospects of attaining to that point long before the millennium, Dr. B., nevertheless makes it evident, that it has been a precious boon to our afflicted race. The concluding thoughts of this address are just and important. It is urged upon the young men to whom it was delivered, that all depended upon themselves whether they were to be cyphers or shining lights in their profession—that to become *great* physicians was impossible, "without continuous labor, ceaseless diligence, and untiring perseverance." Nothing is more true. It is application, diligent, unwearied, persevering, that secures eminence in our profession.

THE LONDON LANCET.

"After thirty years of a career, more useful and more prosperous than any other medical journal in the world can exhibit, we may point to the remarkable, and we believe, unprecedented fact, that the Lancet is still possessed and directed by the same person that offered the first number to our brethren and to science."

This is the language of the Editor of the *London Lancet* in reviewing the labor of his hands. It is not as modest as it might be but perhaps the veteran Editor has been taught by experience that the conductor of a public journal loses nothing by self-praise. He has, moreover, not a little to felicitate himself upon in the career of his singularly successful journal. It has had a wide circulation, and exercised a beneficent influence upon the medical profession all over the world. But we see no good reason why the Editor, while sounding his own praise, should go out of his way to dispatage cotemporary journals. The *Medico-Chirurgical Review* cannot be said in any true sense, to have "dragged on a painful and precarious life," nor the *British and Foreign Review*, to have had "a rapid ephemeral existence." The career of the former, under its original name, was a long and brilliant one,—as long, we believe, and certainly as brilliant and useful as that claimed by its editor for the Lancet; and it has lost nothing of spirit, dignity, or learning by its union with the former. One of the most able journals of medicine ever published in the English language, be-

yond all question, was the *British and Foreign Medical Review*, and we confess that it is not without some feeling of indignation that we see the nose of Mr. THOMAS WAKLEY, albeit an "M. P. during eighteen years for the Metropolitan Borough of Finsbury," turned up at a journal that numbers among its contributors such men as TODD, BOWMAN, CARPENTER, CHURCHILL, MARCEL, JONES, LAYCOCK, KIRKES, JENNER, WALSHE, PAGET, &c., &c. Mr. WAKLEY has not profited by the example of his immortal countryman, mine *Uncle Toby*, nor made the precious discovery, that the world is wide enough, both for his great serial and its more modest but not less worthy competitors. We, here in the backwoods of America, read them all and esteem them highly, which their editors ought to feel to be the greater compliment, seeing how many journals of our own we have to read and admire.

THE WEATHER.

The unavoidable delay in the publication of another number of our Journal, vexatious as it is, has this slight advantage, that it enables us to speak of our spring weather, which has been quite remarkable. The "uncertain glories of an April day" have been celebrated in song and have long since passed into a proverb, but we do not remember when this fickle month ever showed so much versatility as it has done in the last fortnight. The wind has been for days from the rawest quarter, cold as December, rendering the flesh as insufficient a protection as if it were thin paper, piercing to the bones, and developing every latent rheumatism and neuralgia in them; and then the soft south wind has prevailed, carrying the thermometer up to summer heat. We have had Fahrenheit's instrument marking eighty degrees one day, and the next day down to the point of freezing. Our latitude exposes us to the two extremes of temperature, the cold of the northern lakes, still bound up in ice, and the heat of tropical seas; and thus we have winter and summer alternately in quick succession according to the direction of the winds. Ships crossing from Liverpool report the appearance of an extraordinary number of icebergs on our eastern coast, encountered during their late voyages, and to these

we are doubtless to ascribe something of the raw weather which has characterized the present spring. These vast bodies of ice exert a depressing influence upon the temperature of the air along the shores near which they float; and which is felt far in the interior. Their unusual descent into our southern seas is likely to protract this unseasonable weather, and may yet bring upon us the disastrous frosts which have already visited the Southern States. Severe as the cold has been, we are happy to say that our fruits have thus far escaped, and we may be pardoned for alluding to this fact as important, being, as we are, of the number of those who hold that fruit is highly conducive to human health.

SUTTON ON CHOLERA.

Dr. George Sutton, of Indiana, has reported to the Medical Society of that State on Cholera as it prevailed during the years 1849, 1852, inclusive, and has collected a body of facts which may be consulted with interest if that scourge should revisit us again, of which there seems to be but too much probability. It is a report of much labor, and appears to have been faithfully drawn up. Multiplied as are already the observations on that important subject, there is no danger that they will become too numerous, and all will find their place when the true theory of that strange disease comes to be expounded.

AN EXPLANATION.

Some of the proof-sheets of our last number were worked off without being submitted to our inspection, the consequence of which was an unusual number of typographical errors, and the omission of credits in our department of selections. We trust our cotemporaries will not doubt, that it is our earnest wish to do them entire justice, and that where there has been a failure to give the credits due it has arisen from the carelessness of the printer. We hope such omissions will not often occur.

NEW YORK LUNATIC ASYLUM.

We have before us the eleventh "Annual Report of the Managers of the State Lunatic Asylum of the State of New York," which shows that the results of the Institution have been no less beneficial than in any previous year of its existence. But satisfactory as were the general results it appears that sixty applications for admission were refused for want of room for their accommodation—a story repeated, from year to year, by most of the Lunatic Asylums of the States, testifying to the alarming prevalence of insanity in our country. This report goes on to say:—

"The whole number admitted since the Asylum was opened, on the 16th of January, 1843, is 3,923; of whom 1,625 have been discharged recovered, 55 much improved, 598 improved, 753 unimproved, and 446 have died.

"The number admitted during the year was 424; giving a total of 849 under treatment in the course of the year. Of this number, 169 were discharged recovered, 21 much improved, 45 improved, 129 unimproved, and 39 have died; leaving 446 remaining at the end of the year. We refer to the report of the superintendent for a full statement of the operations and results of the Asylum during the year.

"Total number of deaths 39—19 men and 20 women. The mortality has been low, being on the average number resident 9.22 per cent., and on the whole number treated 4.59 per cent. It will be perceived, from the above table, that many of those who died came to us in the last stages of serious organic disease. Of the eight deaths from phthisis, six were dying when admitted, two of them not able to sit up or speak, and were only sustained the short period of their residence by warmth and free stimulation. The seven cases reported as having died of exhaustion were wasted by disease or vicious habits. Three of them, at the development of the mania, had been purged, blistered, and profusely bled, and were brought to the asylum on beds. This injudicious treatment cannot be too strongly condemned. The recuperative powers were in these so far exhausted that no amount of care, stimulation and nutrition could arouse them. It may be proper to state that a number of persons received in a state of extreme feebleness, after long nursing, watchfulness, and free stimulation, recovered. The number of such cases received was 33. Seven of this number died, making 26 per cent. mortality in these cases.

Record of Medical Science.

On the Chemico-Physiological Effects of Coffee.—By Julius Lehman.—If we consider the results of all the investigations and experiments on this subject we must arrive at these conclusions:

1st. That the use of the decoction of coffee produces two important actions in the system, which are difficult to harmonize, viz: stimulating the vascular and nervous system to greater activity, and at the same time considerably retarding the metamorphosis.

2nd. That the stimulating effect above mentioned, so valuable to us from its reviving the wearied spirit, and disposing to thought and promoting a feeling of comfort and cheerfulness, is due to the opposing modifications of the action of empyreumatic oil and caffein.

3rd. That the retarding of the metamorphosis is mainly due to the oil—the caffein showing this, *only* when it exists in large quantities.

4th. That increased activity of the heart, trembling, dizziness, delirium, intoxication, &c., are the effects of caffein.

5th. That the increased action of the perspiratory organs, of the kidneys, of the peristaltic action, and of the brain, are the effects of the empyreumatic oil.

If the decoction be too strong, that is to say, if it is prepared in such a way as to contain too great a quantity of both substances for the system, then occur the effects peculiar to both, trembling, activity of the heart, congestion, &c., &c. If we consider these two chief actions of coffee, which are peculiar to some other substances, such as tea, cocoa, spirituous liquors, &c., though in a modified degree, we observe that they are at variance with the general law, that the greater the expenditure of mental and bodily activity, the greater the waste—or rather the metamorphosis of the system. Whether this excitement of the vascular nervous system, occasions more rapidly the destruction of the processes of life, or how these two opposing effects are to be explained, remains for the future to discover.

One who is familiar with the general law above mentioned, that

an increase or decrease of mental and bodily expenditure, is attended by a proportionate increase ot decrease of the metamorphosis, will find it difficult to comprehend the strength, busy life and good health of the poorer classes, when he considers these in connection with the very small amount of actual nourishment that they are able to obtain. And, in fact, the existence of such persons would have been inconceivable, if no means of supporting their health and strength had been provided, besides that small amount of actual nourishment. Limited to that alone, there would have been a great disproportion between the amount received and that thrown off; the tissues must have suffered a continual waste, even to the dissolution of life. But instinct has taught them to make use of a substance, which is capable of making a too scanty nourishment sufficient to the system, and by preventing in this way the otherwise unavoidable disturbances of the balances of life.

It is particularly coffee, tea, cocoa, empyreumatic oils and alcoholic liquors, that possess this peculiar influence upon the system, and most of these agree in producing that excitement of the nervous system of so great importance in social life.

If we now reflect upon the distribution of these substances, we find that one of them is used by the people as a common article of food, while the others are enjoyed by the higher classes as articles of luxury. In those countries where one or other of these substances is cultivated, its culture is considered as a matter of chief importance by the people; thus, in Arabia, coffee; in China, tea; in the wine-producing countries, wine. On the contrary, where this is not the case, the choice has fallen almost exclusively on coffee or tea. The reason why the preference is given to these, particularly in Europe, is owing principally to the fact that they exert a far less injurious influence upon the system than alcoholic drinks, and also on account of their valuable action upon the nervous system from the united effects of coffee and empyreumatic oil. For while, by stimulating the reason and imagination, these prepare man for intellectual and bodily exertion; spirituous liquors exciting only his imagination, which degenerates by slight excess into confusion of thought; cause, by irritating the nervous system, general debility. These latter, therefore, can be used with much less safety than coffee or tea.

An attentive consideration of the quality and quantity of the composition of coffee and tea, the various modes of preparing them, as well as their action upon the system in connection with the kind of food used, will probably account for the peculiar preferences of nations, for the one over the other. If the composition of tea leaves be compared with roasted coffee, we find that they both possess those substances that are of such great importance—thein, etherial oil, and protein substance. The only difference

between them is, that the coffee contains an aromatic substance, and the tea a greater amount of thein, but especially of etherial oil. Three most important effects are produced by these constituents:—1. The retarding of metamorphosis produced by the thein; but more particularly by the aromatic substance in coffee. 2. The lengthened activity of the brain, produced by the special action of thein and etherial oil. 3. Serving as an actual means of nourishment, by the amount of protein substance contained in them. Coffee influences more directly the metamorphosis, and tea the nervous system. In order to obtain completely these effects of the two drinks, they must be partaken of in substance. This occurs, however only among few nations, and is probably dependent upon the kind of food used, and their mode of life. The Orientals and Arabs regard coffee as a necessary article of food, and from their custom of drinking it with the dregs, thus making the large amount of protein substance and inorganic constituents serve as nourishment, have unconsciously rendered their very frugal diet less sensible to them. If the plastic ingredients are not of themselves sufficient, yet here comes to their assistance the indirect nourishing property of caffein and the aromatic substance—equalising their necessities, and at the same time exciting their nervous system.

The Central Asiatic inhabitants of the Steppes, the Buratians, the Mongolians, &c., &c., make use of tea as a common article of food. They prepare it, first, by rubbing the leaves together, then boiling it in water, adding a little salt to it; after they have poured off the decoction from the dregs, they add to it butter and milk, and meal if they have any, which they roast before adding to the decoction. A person takes per day from twenty to forty cups. But even without meal, and only with a little milk, this tea often serves for weeks long, as the only means of nourishment. We see here again a people instinctively directed, as it were, in the peculiar mode of preparing tea; unconsciously adding those substances which are of such great importance, viz: the protein, that becoming soluble by boiling in salt water, and also a great portion of the inorganic constituents. It is probably here the large amount of thein that influences the metamorphosis. Of course they lose entirely the valuable property of the united action of etherial oil and thein, since by boiling, the former is dissipated. This could better be spared though than the other action of tea, which serves as a direct nourishment, which is of greater importance.

The mode of preparing these drinks among Europeans, is very different—not placing much value upon the nutritive substances contained in them, but merely upon those which are capable, indirectly, of nourishing, and those which induce greater activity of the nervous system and the brain. The mode of preparing

coffee among the Germans, enables them to obtain, besides the empyreumatic oil, as much caffein as they can possibly obtain from it; while in the preparation of tea, less attention is paid to the amount of thein, than to the etherial oil—the whole amount of which passes over to the decoction. Hence, with them, tea acts only as a stimulus to their brain and nervous system, whilst coffee retards the metamorphosis, and, also, though not in so great a degree as tea, stimulates the nerves. The English, who produce so much meat in their own country, and can generally obtain so much of it that it is even possible for the poorer classes to partake of it daily, besides the protein substances, have less need to prepare their coffee in such a manner as to obtain from it indirect nourishment. Since, however, they feel the want of spirits and excitement, their choice has fallen upon tea, which promotes these better than coffee.

We find among the poorer classes of Germany, where meat is so rare, and considered so great a luxury, that they are obliged to substitute for it such poor food as potatoes, &c., which consist of substances which indeed satisfy their hunger, but yet are not fitted to prepare them for very great exertions. The feeling of mental and physical lethargy experienced by them, and produced by this spare diet, becomes much more evident if they suffer from the want of coffee. The rapid diffusion and yearly increase of the consumption of coffee, is an evidence of the great importance it has attained in social life.

Whilst, at the beginning of the last century, it was considered a luxury by the higher classes, it has now become a necessary article to all classes, wherever food is scarce and dear. Of its total production, which amounts annually to 600,000,000 of pounds two-thirds are consumed by the Europeans, whose exertions appear so disproportioned to the actual means of nourishment. In the Zollverein States of Germany, the consumption of it amounted, in 1851, to one hundred millions of pounds, or one-sixth of the total production. Upon each reduction of duty, millions of pounds more were consumed by the people. The consumption of coffee and potatoes, from the period of their general introduction, have gone hand in hand. We see the poor instinctively valuing coffee more, the more they are limited to potatoes as their chief food.

The Substitute (Surrogate) for Coffee.—At the time of the Continental embargo, the want of coffee was felt for the first time in Germany, and the necessity of possessing some such drink, led to the adoption of other substances produced there, to which, by roasting, a taste similar to that of coffee could be imparted. Notwithstanding the general introduction of coffee again, and its greatly increased production in the colonies, and the reduction of duties, which naturally made it cheaper, the consumption of the substitute was not lessened, but increased so as yearly to amount

to 100,000 cwt. The opinion that Knapp, as well as other authors, has started, that this substitute is entirely deficient in those substances so valuable to the poorer classes, can be refuted if we examine its composition, and remove the idea that caffein is the only efficacious substance in coffee. The materials which they have chosen as substitutes, and which may be increased indefinitely, all undergo the same process as coffee, viz: roasting; by which the aromatic substance is evolved, and by which is effected that retardation of the metamorphoses of such great importance to the poorer classes. The roasting thus produces not only a taste similar to coffee, but also imparts to it one of its most important properties. Still we cannot be indifferent to the great deficiency that exists in the substitute; viz: the total absence of caffein, thus losing that valuable influence upon the vascular and nervous system and upon the brain. Since, however, surrogate is about from five to eight times cheaper than coffee, and possesses a part of the peculiar action of the latter, we cannot wonder at its having attained, among the poor, to such a general use.—*Med. Examiner.*

Method of Exhibiting the Iodide of Iron by Extemporaneous Preparation.—By Daniel F. Wright, M, D., Demonstrator of Anatomy, Memphis Medical College, Tenn.—In view of the difficulty of procuring and keeping a reliable preparation of the Iodide of Iron, I have for some time been in the habit of exhibiting that salt by extemporaneous preparation as follows:

℞. Iodinii,
Ferri Hydrogene Redacti, aa ʒss.,
Mellis, q. s.
Ext. Cinchonæ, ℈ij
Pulv. Glycyrrhizæ, q. s.
Ft. massa et in Pill, xxxij, div.

Rub the iodine and iron together till they form a fine powder; add honey enough to give the consistency of thick molasses; then rub for some time till the fumes of iodine cease to come, and the mixture assumes a greenish tinge. Rub in the extract, and add powder enough to make the mass.

Or make a mixture as follows:

℞.	Iodinii,	gr. xij.
	Ferri Hydrog. Redacti,	gr. viij.
	Mellis,	ʒss.
	Ext. Taraxaci,	ʒij.
	Aq. Menthæ,	℥vj.
	M.	

Observe the same rule in combining the iodine and iron as in the former prescription, before the water is added.

The average dose is one of the pills or a tablespoonful of the mixture three or four times a day.

It is to be observed that the iron is given in a proportion a good deal larger than would be enough to form the iodide, as the chemical equivalent of iron, being not much more than one fourth that of iodine, gr. viij., of the former would be enough to neutralize ʒss., of the latter. I nevertheless use the quantities as given above, for two reasons; first, because the tonic effects are much increased by the addition of iron in an uncombined state; and secondly, as an effectual method of preserving the salt from decomposition by the absorption of oxygen; this process would be constantly setting iodine free, but by observing such a precaution, the free iodine is constantly taken up by the uncombined iron. For the same purpose, apothecaries have long been in the habit of keeping a mass of metallic iron (as a watch-spring) in their syrups of the iodide of iron.

The directions given for insuring the perfect combination of the elements are highly important, as otherwise the presence of free iodine would be liable to produce a corrosive action on the coats of the stomach.

One or the other of the above formulæ may be used in all cases where the tonic, alterative and diuretic effects of the iodide of iron are indicated. The dose prescribed contains very nearly a grain of the salt, and may, of course, be increased or diminished at the discretion of the physician. I have, myself, used them with considerable success in cases of secondary syphilis, where the vital and assimilative functions have been much impaired by long continued disease. I have found it especially serviceable in those cases of ascites and anasarca, which result from long continued, intermittent and remittent fever; in these cases I use the second formula, substituting syr. scillæ ʒi. for the honey. The acetic in that syrup is incompatible with the iodide of iron, but, being present in only small quantities, decomposes only an inconsiderable portion of the salt, which, indeed, the uncombined iron is more than sufficient to restore.—*Am. Jour. of Pharmacy.*

MORTALITY OF ST. LOUIS.—Dr. ENGLEMANN closes an elaborate paper in the *St. Louis Medical and Surgical Journal*, on this subject with the following remarks:

"In examining these tables, it must be borne in mind that it is not only the deaths that take place among our resident population, which are recorded there, but that the number is largely increased

by the deaths occurring among the floating population, not included in the census tables, and the numerous travelers and immigrants, who not rarely arrive here in the last stage of sickness, only to people our burying places. I assume the population of the city and suburbs, in 1852, to have been 100,000, and in 1853, 110,000, which numbers however, are hardly large enough to include our floating population. The last column in the tables is based on this calculation. It results from this column, that in 1852, which was the last of our four cholera years, 48 died among 1,000, and in 1853, only 35; that from June to September, 1852, the number of deaths ranged from 4 to nearly 9 in 1,000, in one month, but that in 1853, the number never reached 4 in 1,000.

In both years the number of deaths of white females was 40, and of white males, 60 per cent., which is owing partly to the greater exposure and consequent sickness men are subjected to, but partly, also, to the absolutely much larger number of males in our community.

In 1852, the number of deaths of white children of five years and under, was, in proportion, smaller than in 1853; in the former year it was 45, in the latter 53 per cent. The cause is to be found in the fact, that cholera attacked and destroyed fewer children, in proportion, than adults; we find the mortality among children in the summer months, when cholera prevailed, not to have been much more than one-third of the whole number of deaths. It is further to be found in the lower degree of heat which prevailed in the summer of 1852, and in the absence of fatal infantile epidemics In 1853, on the contrary, scarlatina of a very dangerous character, was prevalent for the four or six first months, almost exclusively among children; the proportion of infantile mortality, from January to April, was 52 per cent. In the months of June, and principally August, the heat of the weather found its easiest victims among young children, and we see the proportion, accordingly, much greater—in June, July and August together almost 60 per cent.

In the statistical investigation, published in this journal, in May last, p. 227, etc., I have already attempted to show the influence of atmospherical agents on the health of the summer and fall of 1852. It now remains to bring those tables down to the end of last year, (1853,) and by them either to confirm or to modify the results arrived at.

The per centage of sickness (see May number, page 228,) I find, for July 8; for August 12, and for September 13. The per centage of mortality was, in July 10, in August 11, and in September 11. The quantity of rain in May, June and July was nearly 11 inches, and in August and September a little over 10 inches. The mean temperature of June (78 degrees,) was higher than I ever observed it in that month; that of July (75 degrees,) was

lower than the average; that of August (76 degrees,) and September (69 degrees,) is about the average temperature for both these months. These meteorological conditions would seem to indicate a sickly summer with a more healthy fall, but the low mean temperature of July evidently prevented much sickness in that month, which might have been expected from the want of humidity in that and the two preceding months. In August, we find a little more than the average sickliness, owing, no doubt, to the excessive heat of the second week of that month, (see above,) but less than the average mortality. In September sickliness as well as mortality were below the average."

The Efficiency of Sulphuric Acid in Diarrhœa.—By Goodeve Bowra, Esq., M. R. C. S. E.—As much has been said and written lately on the treatment of diarrhœa, I beg to offer my testimony on the happy effects of sulphuric acid on persons of all ages, with the full conviction that it is the quickest and most palatable, consequently the best remedy for that disease.

I was requested two years ago to send medicine to a young lady subject to diarrhœa, who had taken a passage to China in a ship not carrying a surgeon. Thinking there must be some mistake, I went on board the vessel and saw the chief officer, who thought himself quite competent to treat (from books and a medicine chest) any disorder likely to arise on the voyage. On asking this gentleman what he would do in cases of diarrhœa, his off-hand reply was, "Never care for that; always carry plenty of sulphuric acid on board, and I have never known it fail."

On the same evening I was called to a lady, seventy-five years of age, very subject to these attacks, which always lasted a week or more, and as it was of great consequence she should return into the country in two days, I made up my mind to try the sulphuric acid, believing I should not be more successful with the old chalk mixture than her medical friend at home.

The following morning I found her up, and so much better, that she had only taken two doses; I gave her a third, which completely cured her. Since then I have used nothing else (save a mustard poultice) in all cases, either with or without pain, both in private practice, and an institution to which I was attached, and I confidently state that during the whole period I have used it, I have not met with one unsuccessful case. The only difficulty is, to persuade some people that acids would not increase their disorder, particularly those accustomed to the old chalk and aromatic confection treatment.

I now constantly recommend patients subject to diarrhœa, or who are nervous about cholera, to keep a bottle of the sulphuric

acid mixture in the house, and on the first symptom of their complaint instantly to take a dose, which is generally sufficient to effect a cure. Many of these patients (I fear, jokingly) tell me they shall expect double charges, as two or three draughts of the acid mixture have more effect than the same number of bottles of the chalk mixture; and I may add, I feel so satisfied with the success of a two years' trial, that I have no hesitation in asserting it as my full belief, that deaths from cholera and diarrhœa would be very materially diminished if the authorities would appoint an agent in all poor neighborhoods, to give a dose of the sulphuric acid mixture to every necessitous applicant suffering from bowel complaint. They would have plenty of persons desirous of availing themselves of this remedy, if I may judge from the gallons I gave away last summer.—*Lancet.*

Recurrence of Dysentery.—Dr. A. F. Jetter, of Palmyra, Mo., has not found, with Dr. Flint, that second attacks of Dysentery are things of rare occurrence. He thus writes in the *St. Louis Medical and Surgical Journal:*

"In 1846, I was the subject of an attack of dysentery, and judging from the amount of pain attendant, thought it a severe case. In 1847, however, I had an attack more violent and protracted than the one of the former year. Since that season I have practiced every year, where it prevailed epidemically—during which time I have had four additional attacks, two of which were of a character so grave as to render recovery for a time doubtful. So you will perceive, I have six several times in my own person, and in different seasons, suffered severe and unequivocal attacks of dysentery. Although I have kept no record of the number of cases, yet more than thirty instances of 'recurrence' of dysentery among my neighbors and acquaintances, now occur to my memory, in some of whom the disease has occurred three or four several times. I have recently (Nov. 10, 1853,) attended four members of a family severally afflicted with dysentery, all of whom I treated for the same disease, two years ago, and another member of the same family living in an adjoining county, has had the disease every summer for the last five. Inasmuch as the attack I had in 1847 was worse than the one of the preceding year, I was for a time inclined to the belief, that one occurrence of dysentery might render each succeeding attack worse; but farther acquaintance with the complaint has not confirmed the opinion; but that one attack does not destroy our susceptibility to the 'recurrence' of dysentery, let the foregoing facts declare."

Morbid Matter in the Blood.—Mr. Henry Lee exhibited several preparations illustrative of the influence of vitiated secretions in the blood in the production of fibrinous deposits.

Dr. Routh remarked, that experiments with reference to the influence of the injection of vitiated secretions into the circulation had been attended with very contradictory results. In some cases the symptoms and effects produced were similar to those mentioned by Mr. Lee; in other instances no perceptible effect was produced. So in cases of dissection-wound some persons suffered, some did not. This he thought showed that the effects were not attributable merely to the introduction of the morbid matter, but that other causes were in action, such perhaps as some epidemic influence. The persons affected also were in a low state of health. As to the statement that the presence of pus in the blood always produced hectic fever, he could not believe it, and thought that facts were opposed to such a statement.

Mr. Henry Lee remarked that the occurrence of fibrinous deposits in some of the cases experimented upon proved his case. Rabies was not always the result of innoculation of the poison, but no one presumed therefore to deny the influence of the *morbus materia*.

Dr. Mackenzie had no hesitation in siding with Mr. Henry Lee on the question of the obstruction of veins by fibrinous deposition from a vitiated condition of the blood. He did not speak specifically of the vitiated condition of the blood from pus, because this, being a fluid which varied very greatly in its properties, would give rise to very different results in different cases. Speaking, however, of vitiation of the blood generally, he could affirm that from this cause alone, arrest, stagnation, and coagulation of blood might take place in the veins, without any primary inflammation of their coats. That some altered state of their lining membrane was induced by the vitiating matter he had no doubt, although it was difficult to define its exact nature, and he believed that in consequence of this alteration, the blood, instead of flowing onwards, was arrested, and coagulated in the veins, upon which arrest and coagulation the general phenomena of phlebitis ensued. —*Lancet.*

Lithotrity Performed on the same Patient forty-eight Times. —Mr. Coulson exhibited the bladder taken from a man aged eighty-three, on whom lithotrity had been performed forty-eight times during twenty years. Whether one or more fragments of the original calculus may have been left in the bladder, and became neuclei of secondary formations, or whether the bladder was at first completely freed, and the relapses depended on the same con-

stitutional disposition which gave rise originally to the deposit of calculous matter from the urine, Mr. Coulson was unable to say. He did not see the case until the middle of last year. It cannot be denied that relapse occurs more frequently after lithotrity than lithotomy. The Norwich tables of Mr. Crosse show twelve cases of relapse after 704 operations of lithotomy, or 1 in 58. From records of operations performed at the Hospital of La Charité, in Paris, between the years 1806 and 1831, it appears that 6 cases of relapse presented themselves after 70 cases of lithotomy, or about 1 in 11. M. Civiale states that the proportion indicated by returns which he received from Bavaria, is 5 in 162 operations (1 in 32); from Bohemia, 1 in 46 operations; from Dalmatia, 1 in 43 operations. At the Luneville Hospital, founded by Stanislaus, King of Poland, for the treatment of calculous disorders, the register shows 13 cases of relapse after 1492 operations of lithotomy, or 1 in 116 cases. The most correct registers are probably those kept at the Norwich and Luneville Hospitals, and from them it appears that relapse occurred after lithotomy once in 58 cases at Norwich, and once in 116 cases at Luneville. For lithotrity there are no other data than those furnished by M. Civiale from his own practice. After 548 operations, relapse followed in fifty-five cases, giving a proportion of nearly 1 in every 10 cases. After lithotrity, every tenth patient may suffer relapse; after lithotomy, the proportion seems reduced to 1 in 60. Mr. Coulson did not think sufficient attention was paid to the condition of the urine after lithotrity, as an indication of the existence of fragments in the bladder. It is not enough that the painful symptoms produced by the stone shall have subsided, and no portion can be detected by the sound or lithotrite. If the urine when first passed is at all turbid, and especially if it contains any exudation corpuscles, first pointed out by Dr. Golding Bird, there can be little doubt that some fragment remains behind. This distinguished physician laid great stress on these bodies, as indicating the presence of stone, and Mr. Coulson knew two cases lately, in which, in consequence of the existence of these corpuscles, persevering efforts were successfully made in search of stone, although on previous examinations none could be detected. Mr. Coulson then gave the following description of these bodies, for which he expressed his obligation to Dr. Golding Bird: "These large organic globules can hardly be distinguished under the microscope from pus globules. They exhibit several nuclei on the addition of acetic acid. To those unacquainted with microscopic observations, the following characters of the urine will afford excellent and safe guides. The urine is pale; looks as if a little gum had been deposited in it, an appearance quite characteristic on agitation. Specific gravity lower than normal; does not coagulate by heat, but on addition of liquor potassæ, in a quantity equal to one-third the bulk of urine in a test tube, the

whole becomes quite transparent, and more or less gelatinous, sometimes so sizy as to be pourod out with great difficulty. The differential diagnosis from purulent urine is the absence of albumen, and from mucous urine its gelatinization with liquor potassæ." To revert to the case now before the Society, the patient, aged eighty-three, on whom lithotrity had been performed, in the last twenty years, forty times, was sent by Mr. Wheeler, of Chelmsford, in May last, to Mr. Coulson, who at eight sittings crushed, without the least difficulty, a large lithic acid calculus, the detritus which came away weighing an ounce. The operations were not attended with any unfavorable symptoms, and on the 9th of June he returned home. Towards the end of the year, symptoms of vesical irritation returned, and Mr. Wheeler again sent the patient to Mr. Coulson, who admitted him on the 26th of November under his care at St. Mary's Hospital. He then complained of frequent desire to pass urine, and pain at the neck of the bladder and in the perinæum after voiding it. The urine contained some mucus, but no pus, blood, or albumen. There was no doubt that either a portion of the original calculus remained, or a new calculus had descended. Four ounces of tepid water having been injected, the lithotrite was introduced, and passed over a calculus on the right side of the bladder, but by no manipulation or change of posture of the patient could the stone be seized between the blades of the lithotrite, or the instrument be passed behind the calculus. The trial was made on two different occasions under chloroform by Mr. Coulson and others. As there were no urgent symptoms, it was determined to wait, but the man became impatient at the delay, and returned home on the 10th of December. He got cold, and died on the 30th of December.—*Lancet.*

Report of Nine Cases of Poisoning by Arsenious Acid.—By R. A. Lewis, M. D., Richmond, Va.—On the 15th of February, 1854, at half past seven o'clock, A. M., I was called to see a family, consisting of nine persons, six adults and three children under ten years of age. Six of the nine were white persons, and three were black. Five of the whites were adults, and one a little girl about five or six years old. One of the blacks was an adult; the other two were children—one eight and the other four years old. All the white persons were females except one—a man about twenty-five years of age. All the blacks were females—the adult a woman about forty years old.

I found these nine persons all laboring under the symptoms of poisoning by some irritant poison. The symptoms were violent, nausea and vomiting, faintness, a sense of constriction and burn-

ing in the throat, great thirst, pain in the stomach and bowels, quick, irregular pulse, and skin rather cooler than natural.

Upon inquiry, I found that there had been a difficulty with the cook, a black woman, about forty, and she had been notified that she would be sent to the public hiring on that day; and she had replied that she would die before she would go.

The whole white family sat down to breakfast, and in a short time some of them became deadly sick, and began to vomit; and in a short time all who had eaten were vomiting; or rather, all who had drank coffee. The cook was called into the house and accused of putting poison in the coffee, which she denied. She was then told, if she had not done so, to drink some of the coffee. She said she was not afraid to do so, and poured out and drank a cupful, and gave some to each of her children.

I poured the liquid out of the coffee-pot in a bowl, and spread the grounds out in a plate, and found white particles through the whole of them. Placing some of them on my watch, I found it was not corrosive sublimate. As arsenious acid is more commonly used as a poison than any other substance, I commenced my treatment upon the supposition that this was the poison used. I immediately sent for hydrated peroxide of iron; or if that could not be had freshly prepared, magnesia ust. While the messenger was gone, I gave my patients freely large draughts of flour and milk, which was ejected almost as soon as swallowed; but was repeated every few minutes, till the messenger to the druggist returned with the magnesia, the hydrated peroxide of iron not being readily prepared. While administering this in large doses, not being weighed or measured, Dr. Power, who had been sent for, came in, and concurring perfectly with me, we continued to give them the magnesia, and the mucilage of sassafras pith for a drink, (which was given *ad libitum*) till about 2 o'clock, P. M. The vomiting still continuing, large quantities of bile, mixed with food, was ejected, mixed with the magnesia and mucilage, and an occasional tinge of blood, and an action on the bowels occasionally in some of the cases.

About 2 o'clock, P. M., we gave each patient a full dose of laudanum in a little olive oil, and repeated it until it was retained. Mustard plasters over the stomach were also applied. The vomiting gradually ceased, the intervals between the paroxysms becoming longer and longer until 10 o'clock at night—most of them dosing—when we left them.

February 16th.—We were told that our patients rested some through the night, occasionally suffering from nausea, and some of them vomiting several times. We found them all complaining of headache, soreness and tenderness over the stomach, great thirst, skin rather warm, and pulse quick and tense in all the cases, ex-

cept the black woman, who had been purged most. Her skin was cooler and pulse weaker than the rest. Other symptoms the same. Directed ice to be eaten freely, and a tablespoonful of ice cream three times a day.

17th.—Patients all better. Treatment and diet the same.

18th.—Patients still better; ask for food; small quantity of mush and milk three times a day, and ice as before.

19th.—Patients all sitting up, but weak, asking for meat, bread, &c., but mush and milk diet was prescribed for a week, and the patients dismissed as convalescent.

I have been informed that the black woman, on the 20th, repeated the dose, from which she died. I was not called to her in the second attack, but on the 19th she was as well as the others, all of whom have recovered. Before her death she confessed that she put a white powder in the coffee.

I took some of the decoction of coffee and some of the grounds home with me, and analyzed them, which gave the following result:—

1st.—The acids and zinc to be used were tested and found to contain no trace of arsenic.

2d.—Some of the grounds were carefully dried and heated in a test tube, with pulverized charcoal, which gave the characteristic metalic ring of metalic arsenic.

3d.—The hydrogen, or Marsh's test, was used, and after the coffee was added to the zinc, acid and water, and the hydrogen lighted, white fumes were emitted, with the characteristic odor of arsenious acid fumes, which, in opposition to authority, I will state is not the odor of garlic exactly, but nearer to that of phosphorus. On applying clear porcelain and glass to the flame, large metalic rings were obtained, so thick that they could readily be scaled off. These exhibited the characteristic metalic lustre and play of colors.

4th.—Some of the scales from the rings obtained by Marsh's process were heated in a tube resolved into arsenious acid, distilled water added, and boiled, and sulphureted hydrogen passed through the solution, which threw down the rich golden precipitate of sulphuret of arsenic or orpiment.

5th.—A solution obtained in the same manner as that which was treated with sulphureted hydrogen, was tested with ammonio-sulphate of copper, when a beautiful rich green precipitate of arsenite of copper was obtained.

6th.—A similar solution being tested with ammonio-nitrate of silver, gave the canary yellow precipitate of arsenite of silver, which changes to a greenish brown when exposed to the light for a short time.

7th.—Reinsch's test was used. Some of the decoction of coffee

was acidulated with hydrochloric acid, boiled, and while boiling, bright slips of copper introduced into the boiling liquid, which were instantly covered with metallic arsenic.

One favorable circumstance in these cases was the large quantity of the poison administered, and on its being taken into the stomach with a quantity of food, the arsenic acted as an emetic in a few minutes, and most of it was ejected, most probably, with the food; but it is rare for so many cases to recover under the most favorable circumstances, and is, I think, an argument in proof of the potency as an antidote of the old remedy, magnesia, when persevered in, and given in large doses.—*Stethoscope.*

Infusoria in Woman's Milk.—By. Dr. Vogel.—No general directions can be given as to whether a woman may suckle or not. In every case the question must be determined by an examination of the milk; and here the microscope proves eminently useful. The author found in that milk which produced sickness in the child, and destroyed the health of the mother after prolonged lactation, immediately after its removal from the breast, infusoria similar to those found in the incrustations upon the teeth (*vibrio bacillus*). Such vibriones are found especially in women who menstruate or suffer from hœmorrhages during this period, the good or bad aspect giving no important indication. The milk has often a fine, thick, white color, or is of paler hue; its consistence may be either thick or watery; its re-action is often alkaline, but generally neutral. Under the microscope it exhibits, according to its richness, sometimes but few, at other times many, milk and cream corpuscles; these differ from the corpuscles of healthy milk by their pale yellow color, their want of metallic lustre, and their speedy decomposition. As regards the infusoria, they are little rod-shaped bodies, dark in the middle, surrounded by a lighter line, but exhibiting neither head nor tail under a magnifying power of 600 diameters; there are, however, feet in great number and of considerable length. The movement of these animalcules was swimming, and occasionally it was very active. Forward movement was worm-like, and an annular stricture of four rings was observed. Mostly they twist screw-like, upon their axes. When they swim in a circle, they always move from right to left. The length is one-hundredth mmtr., their breadth four times less. They are best seen when the milk is diluted with water. In ammonia-diluted acids (even the lactic) they die immediately.

Children fed upon milk containing these infusoria, become sooner or later attacked by diarrhœa, and the evacuations are of a green color. This condition disappears as soon as healthy cow's milk is substituted. The author believes that this effect does not

proceed from the infusoria as such, but from the same cause which produces the infusoria, namely, a process of fermentation in the milk itself. The ferment is, according to him, the congested and increased heat in the breasts, connected with the general excitement of the sexual system.

But a fermentation, as Jul. Clarus observes, cannot be present, because the author always found the milk alkaline or neutral, and never sour. Were there fermentation, the evolution of lactic acid would, upon the author's own showing, have immediately destroyed the infusoria.—*Schmidt's Jahrb.*

THE HEROIC CONDUCT OF THE SURGEON OF THE "TAYLEUR."—Most of our readers have probably read in the newspapers an account of the heroic conduct of Mr. Cunningham, the surgeon of the ship *Tayleur*, recently wrecked on the coast of England. The following just and beautiful tribute to his memory is from the pen of Dickens:—

"When these men perish at their work, they do not die with soldiers' laurels, but their names become connected with their last brave actions, and are told by Englishmen to one another in their households, so that in after years they receive honor by many a fireside. The surgeon of the *Tayleur* was conspicuous in his exertions for the re-assurance and assistance of the shipwrecked passengers. We read at home, how, while struggling across a rope, with his own infant in his hands and teeth, he was plunged into the sea that dashed his child out of his hold; we read that he was seen, then, holding by the ship's side with a drowning woman in his arms, whose hair he was parting gently, and to whom he seemed to be speaking words of comfort. Her, too, the sea forced from his grasp; and we read that he was next seen perishing with his wife, during a vain struggle to save her. The noble man with his little family—his wife and two children—is swept away; he exists now only in the name of ROBERT HANNAY CUNNINGHAM. But these are the men whom we want living among us; these are the energies that we need for the leavening of all society, and for the work of the world. These are not men to be sent out in emigrant ships to the bottom of the sea. Their memory, too, will be best honored if we be indignantly aroused, for their sakes, to amend an evil."—*Lancet.*

The Western Journal
OF
MEDICINE AND SURGERY.

MAY, 1854. NEW SERIES. VOL. I.—NO. 5.

ART. I.—CASES OF EMPHYSEMA OF THE LUNGS AT THE LOUISVILLE MARINE HOSPITAL, WITH REMARKS.

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THREE CASES of Emphysema of the lungs have lately been presented before the medical class at the Amphitheatre connected with the Louisville Marine Hospital. This affection, interesting in itself, has pathological relations of great interest and importance. It is an affection by no means very common, yet, on the other hand, not extremely rare. There is reason to believe that it is often overlooked, or insufficiently appreciated by practitioners of medicine. In view of these considerations, I propose, in this article, to give a report of these three cases, respectively, embracing an account of the symptoms and physical signs at the dates of admission and of discharge, and appending a few general remarks which the facts contained in the histories of the cases will suggest.

In each of the three cases the disease was of that form called *vesicular* or *true Emphysema*, the morbid condition, in this variety of the disease, consisting in a permanent enlargement, in a greater or less degree, of the *air vesicles* of the lungs, either by distension, or rupture of the cell walls and coalescence, or both being com-

bined; differing from what is distinguished by the name of *interlobular Emphysema*, in that the latter consists of the extravasation of air into the areolar structure interposed between the pulmonary *lobules*. Interlobular Emphysema is undoubtedly a veritable affection, but so rare that, practically, it possesses not much importance. It is safe to say that ninety-nine of one hundred cases of emphysema presenting themselves in practice, are of the kind called *true* or *vesicular*.

An important distinction pertains to the point of departure, or the primary changes of structure in different cases of vesicular emphysema, which will account for some variations in the physical signs, and may explain certain discrepancies appearing in the writings of different observers. In some instances the affection commences with, and becomes developed in consequence of atrophy and dissolution, more or less of the intervesicular septa. As the result of this atrophy and dissolution, coalescence of the cells, to a greater or less extent, takes place. The area of the respiratory surface, of course, is diminished in proportion to the extent of coalescence; just as the interior surface of a single hollow globe is less than the aggregate of the inner surfaces of a series of smaller globes. Here the point of departure, or the primary change, is the destruction of the partition walls of the air cells. In this species of emphysema the volume of the lungs may be but little increased. This is an important point of difference with reference to the external appearance of the chest, and some of the physical phenomena. As emphysema thus developed is especially incident to advanced life, it is sometimes known as *senile emphysema*.

In other instances the disease commences with an abnormal and permanent enlargement of the cavities of the cells. They become over-distended, and, losing more or less of their elasticity, they continue in this condition. It is thus a kind of wind dropsy. There is an excess of air in the cells, but it is retained there, and inasmuch as the chemical changes to be wrought in the blood require constantly fresh supplies of air, as of blood, the effect is precisely the same as if the cells were diminished in size to a degree rendering their capacity insufficient for the function of hematosis. Over-distension is the point of departure in the primary change, in this second kind of emphysema, and in this variety of the affec-

tion the volume of the lungs, or of the portions affected, is notably increased, and, hence, greater enlargement of the chest, and other phenomena dependent on the larger quantity of air which the lungs contain, and the greater pressure exerted on the thoracic walls. In this latter kind of emphysema, however, it is to be remarked, atrophy of the intervesicular septa may occur, but in this instance, it is a secondary, not a primary lesion. It will be seen that the cases which are to follow illustrate the form of Emphysema last mentioned.

Both kinds of Emphysema, so far as regards the relation of the disease to its important symptoms, and effects, are identical; in other words, after the affection becomes developed, the pathology is the same. The train of evils, in either instance, arises, first, from defective performance of the blood changes dependent on respiration, and second, from the obstacle which is presented to the free transmission of blood through the pulmonary capillaries. The diminished area of the respiratory surface of the lining membrane of the cells, in consequence of destruction of the walls and coalescence, and the inability to replace sufficiently, by successive acts of respiration, the air contained in the cells, account for the defective blood changes. The obstacle to the free circulation through the pulmonary capillaries arises from several causes. *First*, the capillaries are diminished in proportion to the destruction of the cell walls; *Second*, the over-distension compresses the vessels and thus becomes a source of resistance to the passage of blood; and, *Third*, inasmuch as the chemical actions going on between the blood and atmosphere develop an attractive force which helps to carry on the pulmonary circulation, a morbid diminution in these changes impairs proportionately this attractive force, and leads to a retarded flow of blood. In consequence of the obstacle to the pulmonary circulation, thus, in different ways incident to emphysema, the right ventricle suffers an over-accumulation of blood. As consequences of this result we observe some symptoms in cases of the disease referable to a congested state of the systemic venous system; and, as a remote effect, we find enlargement of the heart, sooner or later, occurring, the evils of which are added to those more directly due to the condition of the lungs.

With these few preliminary remarks, I proceed to give, from the hospital records, an account of the cases, commencing with the case in which the emphysematous lesions were least in degree, and ending with the one in which the characters of the affection are the most strongly marked.

CASE 1.—*Michael Fanning*, aged thirty-seven, Irish, machinist, admitted December 22d, 1853.

Previous History.—States that he is not aware of any of his family having been affected similarly to himself. At about the age of sixteen years, he began to have paroxysms of difficulty of breathing, occurring generally at night, requiring him to take the sitting posture. From that time to the present has generally been conscious of a sense of labor in respiration. For the past twenty years has not been able to take active exercise without a sense of breathlessness. Whenever he has contracted cold, the embarrassment of respiration has been considerable, obliging him to quit work for a time. His respiration has always been better in the summer than in the winter. The habitual sense of labor in respiration he thinks was greater for the first five years, than since. He is not aware that his malady has increased for the last fifteen years in that respect, but he has found that he cannot bear active exercise as well as formerly, experiencing therewith greater want of breath. He has been more subject to colds of late years than formerly, and they are attended with greater disturbance of respiration. Has been subject for the past twenty, or more, years to paroxysms of difficult breathing, occurring without cold, exercise, or any obvious cause. These paroxysms are very irregular in their recurrence, being most apt to come on during the night, but sometimes in the day time. They have occurred, more or less, weekly, and sometimes several times in the twenty-four hours. They last from five minutes to an hour. They have increased in frequency and severity every year. He prefers to lie with his head elevated. He cannot lie on a feather bed; he says it "stops his breath" to do so, and that he is obliged to get up and lie on the floor. He has had more or less cough and expectoration for the last twenty years. These symptoms have increased, but not greatly. Has never had hemoptysis, but has frequently expecto-

rated mucus streaked with blood. He thinks he has preserved the same weight for several years past. During the last summer, while affected with intermittent fever and diarrhœa, he lost flesh, but has gained, in that respect, of late. Has worked, more or less, during this whole period. He has been accustomed to drink daily for the last sixteen years, and has occasionally drank to excess.

Present Condition.—Laboring under an attack of bronchitis. Face presents a puffy appearance, and is deeply congested. Suffers much from paroxysms of coughing attended by dyspnœa, especially during night. Expectorates freely muco-purulent matter. Appetite poor. Has slight diarrhœa, with some tenderness over abdomen, and tympanites. He is not confined to the bed, and is not emaciated. Pulse 114, very feeble and quite irregular. Respirations 24. They are labored, and the labor is especially marked in the expiration. He is not at the time of this examination laboring under a paroxysm of difficult respiration.

Physical Signs.—The chest is full and rounded, the right side more so than the left; the clavicles are but slightly apparent. The expansive movement is slight. Respiration is diaphragmatic, the abdominal muscles acting with expiration. The upper part of the chest inclines forward.

Percussion.—Both sides, in front, yield a very clear percussion sound. The left side gives a fuller and somewhat graver note than the right. The sense of resistance is distinctly greater on the right side. Hepatic flatness commences with the sixth rib, and on line of nipple. Clear percussion sound on both sides behind.

Auscultation.—There is so little movement of the upper part of the chest with respiration, that it is somewhat difficult with the ear applied to the chest, to tell with which of the respiratory acts the sounds correspond. They appear to be sometimes with one, and sometimes with the other.

On examination at the time of noting the signs, there is a feeble, shortened sound of inspiration on the right side, at the summit of the chest, and an obscure râle accompanying expiration. On the left side the inspiratory sound is better evolved, and longer, with no distinct sound of expiration, but an obscure râle taking its place.

Over the middle and lower thirds, on both sides, a faint inspiratory murmur is alone heard. Behind very faint inspiration over scapula, and scarcely appreciable below.

Vocal resonance slight, and about equal on both sides, at the summit, in front.

Vocal fremitus slight and about equal on the two sides.

Apex impulse of heart not appreciable by touch, but faintly visible at the nipple. Relative dullness transversely, in precordia, extends to about an inch beyond nipple. Heart sounds very feeble but pure.

Treatment.—Anodyne, expectorant mixture, and the application of croton oil to chest. Nutritious, non-animal diet.

January 15th, 1854. The patient has progressively improved to this date, and now feels sufficiently well to be discharged. The diarrhœa has ceased. Appetite is good. Cough much less troublesome, and expectoration small. The respiration is less labored than when he entered the hospital, but active exertion occasions panting as heretofore. Pulse 88, and frequently intermitting. Respirations 28. Aspect pallid, but no lividity. Expression does not denote anxiety. No morbid change in countenance except pallor.

Physical Signs.—Form of chest not notably altered. The infra clavicular and post clavicular spaces are not depressed. The clavicles do not project, their outline simply being apparent. The spaces, however, above and below the clavicle are not bulging. The right infra clavicular region is fuller than the left. Intercostal depressions are no where visible, except at the lower and lateral portions of the chest. On a posterior view no intercostal depressions are apparent. The patient presents moderate *embonpoint.* The movements of the chest in respiration are very slight. The expansive movement at the summit, on the right side, is almost null. On the left side, slight. An evident disparity exists between the two sides in this particular. The entire chest presents, with inspiration, a moderate elevation movement, except at the lower portion, and here it appears slightly to contract. Behind, the upper part of the chest inclines forward. The spine is curved, first backward and then forward. The right scapula moves with the respirations more than the left. On forced respi-

ration, the whole chest is elevated as if in one piece the elevation movement becoming conspicuous, while the expansive movement is not increased. Walking briskly twice across the road occasions panting respiration with the characters just described. The heart's action is also thereby increased.

An impulse of the heart cannot be felt while he is tranquil, but after walking across the ward it is indistinctly felt by the side of the ensiform cartilage, and not elsewhere.

The expiratory acts are evidently longer than the inspiratory.

The percussion sound is very resonant at the summit of the chest on both sides. On the right side it is more tympantic. The pitch on the right side is slightly higher. The resistance of the thoracic wall on the right side is in a marked degree greater than on the left. Posteriorly, over the scapula, the percussion sound is abnormally clear.

In the precordial region the sound is quite dull transversely as far as the nipple.

No respiratory sound is appreciable anywhere save an indistinct murmur with the inspiration in the right interscapular space.

Neither vocal resonance, nor fremitus are distinctly appreciable.

On mensuration the right side is seventeen and three quarter inches; and the left, seventeen inches.

The sounds of heart full and pure.

Patient discharged.

CASE 2.—*Mary Jane Kesterson*, aged nineteen, widow, admitted November 27th, 1853.

Previous History.—States that she enjoyed tolerably good health prior to about two years ago, when she had measles. Since that time she has suffered constantly, more or less, from cough, and difficult respiration. During the past two years has never been free from a sense of labor in respiration, but experiences much greater difficulty at some times than at others. She has been subject to paroxysms of dyspnœa coming on irregularly, and also irregular as respects duration. These paroxysms are most apt to occur at night, and frequently she has several in succession during the same night. She also suffers similar attacks during the day time. Exercise occasions difficulty of breathing. Laugh-

ing has the same effect, with acts of coughing, when violent, she feels as if she should *lose* her breath.

Present Symptoms.—She has a pretty large expectoration, decidedly purulent, but the quantity, she says, is less than heretofore. Face presents a puffy appearance, with some lividity of prolabia. Sleeps best when she lies with her face downward. The acts of coughing are violent and spasmodic, resembling the coughing in pertussis, exclusive of the sonorous inspiration, or whoop, of that affection. During a paroxysm of coughing, the face becomes deeply congested, and the respiration greatly embarrassed. Expectorates with considerable effort, although the matter of expectoration is not adhesive. She has slight dyspnœa constantly. Her skin is cool and dry. There is moderate capillary congestion of the upper extremities. She suffers from cold hands and feet. The radial pulse is thread-like and so as to be enumerated with difficulty. It is 100 per minute. Respirations 30, and moderately labored when the paroxysmal difficulty is not present.

The patient has had one child, not living. Has no knowledge of her parents or any of her progenitors having been affected like herself.

Physical Signs.—Nov. 30.—The anterior superior portion of the chest, on both sides, is full and rounded, the left side is fuller than the right. There is considerable elevation movement with inspiration, but the expansive movement is slight. The whole superior part of the chest, including the clavicle, is elevated with inspiration. The right side expands more than the left, and is evidently more depressed with expiration. The lower portion of the chest appears contracted, and seems to be drawn in with the acts of inspiration.* The expiratory act is in a marked degree longer in duration than the inspiratory. It is at least twice as long. This is, in part, due to abnormal shortness of the inspiration. On comparing the appearance of the chest to day, with that of yesterday, at a time when the patient was laboring under a paroxysm of dyspnœa, there is evidently a less degree of enlarge-

* Although this contraction with inspiration is sometimes real as shown by one of these cases, in this, as in other instances, it is only apparent, and is occasioned by contraction of the intercostal spaces without contraction of the ribs.

ment. This is shown by the fact that then the mammary gland did not project, while now it is somewhat pendulous.

No heart impulse is discoverable, either in epigastrium or precordia.

The circumference over the chest, at the third rib, in expiration is 29 inches; in inspiration, 29¼ inches. Below the mamma the circumference is 27¼ inches. The latter remains unaffected either by inspiration or expiration.

No intercostal depressions are visible in front. They are slightly apparent at the inferior and lateral portion of the chest.

The percussion sound is very clear, in front on both sides. Relatively it is less clear, and the pitch is raised in the right infra clavicular region. The sense of resistance is greater on the right side. Over the upper part of the middle third, percussion sound equal on both sides. There exists relative dullness over the right scapula, and over the whole of the right side posteriorly.

On the left side, in front, with inspiration, there is a fine mucous râle, and with expiration a combination of sibilant and sonorous râles, the expiratory sounds much prolonged. On the right side still louder sibilant râle with prolonged expiration. Behind, a short rough sound of inspiration, and prolonged expiration with sonorous râle.

Slight vocal resonance over the right scapula, and none over the left.

Sounds of heart heard distinctly in precordia, and pure.

Treatment.—Nutritious, but non-animal diet, Stokes' linament to chest, anodyne expectorant mixture.

Dec. 15. The condition of the patient remaining about the same. Balsam of copaiba, in mixture, was prescribed, and no other remedies.

January 8, 1854. The patient reports better than at the date of the last record. The cough is less, and the expectoration much diminished. She has less habitual difficulty of respiration. Does not now experience much inconvenience except on exercise. The aspect is improved. The prolabia are dull in color, but not distinctly livid. The respirations are obviously performed with less labor. They are twenty per minute. The expirations are longer than the inspirations. No radial pulse is appreciable. Counted

at the carotid artery. The pulse is one hundred per minute. She sits up all day. The appetite is good, and the bowels are regular. She feels quite weak. Respiration becomes laborious and attended with dyspnœa on exercise. She suffers from palpitation on exercise. This is not a new symptom although not previously recorded. When tranquil, the impulse of the heart is not preceptible, but after walking once slowly across the room it is felt over the whole precordia, the action accelerated, and the respirations are panting.

The expansive movement at the apex of the chest, as near as can be determined by the graduated tape, is from $\frac{1}{8}$ to $\frac{1}{4}$ of an inch. At the lower part there is neither contraction nor expansion.

On both sides loud sibilant râle with the expirations, and no murmur of inspiration.

Percussion sound notably clear, with tympantic quality.

No intercostal depressions visible at the upper part of chest.

The balsam of copaiba is continued.

The patient remains at the hospital at the time of writing this report (Jan. 23, 1854.)

CASE 3.—*John Scieller*, aged thirty-three, German, baker, admitted Dec. 31, 1853.

Previous History.—Patient states that his father was affected as he is, and died at the age of fifty-six years, as he thinks, from the same affection. He has brothers and sisters, none of whom have been similarly affected.

He recollects that when not more than six years of age he could not take active exercise without difficulty of breathing; and he has ever since experienced the same difficulty. It has uniformly been worse in the winter than in the summer. Otherwise his general health has been good.

Three weeks ago he fell overboard from a steamboat, and being unable to swim, was nearly drowned before being rescued. He was unconscious when taken out of the water. He was not confined to the bed immediately after this occurrence, but worked his passage on the boat up the river to this city. He worked a few days after arriving at Louisville, but was finally compelled by

debility, cough and difficulty of breathing, to come to the hospital. A very satisfactory account of the previous history cannot be obtained, partly in consequence of the embarrassment of respiration rendering it difficult for him to talk, but still more from his imperfect knowledge of the English language.

Present condition.—Face presents a puffy and dingy appearance. Expression denotes distress. Appetite tolerable. Considerable thirst. Complains of headache. Bowels regular. Pulse 124, very small and full, pulsations occasionally lost. Extremities cold. Marked capillary congestion. Paroxysms of coughing frequently occur, with small expectoration. In these paroxysms the face becomes deeply congested and livid. He preserves a semi-recumbent posture. The respirations are 36 per minute, and greatly labored. The inspirations are short and spasmodic, and accompanied by dilatation of the *alæ nasi.* The expirations are at least four times as long as the inspirations.

Physical Signs.—The chest, in front, appears full and rounded, over and above the mammary region. The right side is more prominent than the left. No intercostal depressions visible except at the lower part of the chest, and here chiefly in the act of inspiration. The expansive movement with respirations is slight. The chief movement is that of elevation. The whole chest in inspiration is moved upward as in one piece. At the lower part the chest appears to contract with the inspirations. Above the sternum the integument collapses with the inspirations.

The percussion sound, on both sides, is notably clear, with somewhat of the tympanitic quality. This quality is more marked on the right side, and the pitch is higher.

In front, a respiratory sound is not uniformly appreciable. A faint, fine mucous râle sometimes heard on the right side at the end of the inspiratory act, and frequently a prolonged sibilant râle with the expiration. Behind, a clear percussion sound on both sides. At the upper part of the chest an indistinct murmur at the end of the inspiratory act.

A clear percussion sound in precordia, but the pitch higher than in corresponding region on the right side.

Heart sounds very feeble, and no impulse appreciable.

January 2, 1854. Since the previous date the patient has pro-

gressively improved. The respirations are now but moderately labored. They are twenty per minute. The alæ dilate slightly and the inspirations are still shortened. The countenance does not express suffering. The violent spasmodic cough has nearly disappeared. He now rarely coughs, and the quantity of expectoration is quite small. Appetite improving. Bowels regular. Pulse one hundred, and tolerably developed. The upper extremities present marked capillary congestion, and this exists in a moderate degree over the whole body.

During the severity of the symptoms, since the previous record, the patient exhibited delirium by incoherent talking.

The treatment pursued in the case has consisted solely of Hoffman's anodyne, ʒs three times daily, and whisky, ℥ss three times daily.

Physical Signs.—The chest, in front, still appears expanded; more so on the right, than of the left side. There are no intercostal depressions at the upper part of the chest; and at the lower part, in front and behind, they are only visible in the act of inspiration. They are then drawn in so as to be deeply marked. The whole chest moves, upward, as in one piece, with inspiration. The expansive movement, as determined by inspection, is but slightly apparent at the upper part of the chest, while the lower part appears to contract with inspiration. The expansive movements, determined as correctly as possible by means of the graduated tape, are as follows:—At the lower part of chest, with inspiration, the chest contracts about $\frac{1}{8}$ of an inch. Through the line of the nipple the chest is nearly immoveable; there is a very slight expansion. At the upper part, the expansive movement is about $\frac{1}{8}$ of an inch.

The percussion sound is very clear—drum-like, or tympanitic—with a ringing note. These characters are more marked on the right side. It is not easy to determine a marked variation in pitch, but on the left side the note seems somewhat higher.

No sound of respiration is appreciable anywhere either in front or behind. Nor is there either vocal resonance or fremitus.

Jan. 7. Patient reported feeling well enough to leave the hospital and he was accordingly discharged.

The foregoing cases afford excellent illustrations of the symptomatology, physical signs, and the historical events pertaining to emphysema of the lungs. The disease is one of those of which little was known prior to the minute investigations in morbid anatomy to which medical science is so much indebted for its progress during the past half century. The researches of LAENNEC led to the first distinct appreciation of the character and importance of the affection; so that, in the language of ROKITANSKY, "had LAENNEC done nothing else for medical science, his discovery of this diseased condition, and of the causes giving rise to it, would have sufficed to have rendered his name immortal." The disease still offers scope for study. There are points relating to its symptoms, signs, pathology, causation, etc., not yet fully settled, with reference to which accumulated clinical observations are to be desired.

In each of the three cases the symptoms denoting the commencement of the disease were traced back to early life; in one case as early as six years of age, in another at seventeen, and in the remaining case at sixteen. In two of the cases the disease had existed for many years; in the remaining case it was comparatively recent, having existed only two years.

In but one of the cases could hereditary influence be suspected to be concerned in the production of the disease. That a predisposition to it may be transmitted, was established, some years ago, by statistical researches prosecuted by the late JAMES JACKSON, jun., of Boston, Massachusetts.

In one of the cases the disease appeared to have its origin in an attack of measles. In the two remaining cases no circumstances appear in the previous history bearing on the causation except that the patients seem to have suffered from asthmatic paroxysms, and more or less cough and expectoration from the time that the existence of a constant difficulty was evidenced in habitual want of breath for active exercise. The connection which these symptoms may have with the origin of the disease will appear presently.

The causes of emphysema, and the mechanism of its production, are not, as yet determined satisfactorily to all minds. LAENNEC attributed the disease to a catarrhal affection seated in the smaller bronchial tubes, occasioning an obstruction, not sufficient to pre-

vent the air from being forced into the cells by the act of inspiration, but offering a resistance to the egress of air from the cells with the less powerful act of expiration. This theory is now generally ignored, but a better explanation of the origin of a certain proportion of the cases of the disease has not been substituted. It seems reasonable that an incomplete obstruction, from any cause, at the smaller branches of the bronchial tree, in view of the relative power of the acts of inspiration and expiration, should lead to over-distension, and, at length, permanent enlargement of the cells. LAENNEC, however, supposed that the obstruction was due to solid sputa becoming impacted in the tubes. It is more probable that the swelling of the membrane is the source of the obstruction—that the affection is the result of subacute, or chronic capillary bronchitis, the minute bronchial tubes not being sufficiently obstructed to occasion the notable and dangerous embarrassment of respiration which characterises the acute form of that variety of bronchial inflammation. Bronchitis extending to the smaller tubes, accompanied with the formation of solid mucus, is more likely to lead to complete obstruction; and, in consequence of the obstruction being complete, to collapse of the air vesicles, and pulmonary lobules, rather than emphysematous enlargement. It may at first strike the mind of the reader as paradoxical thus to attribute two lesions directly opposite in their character, viz: emphysema and collapse, to the same, pathological source, viz: capillary bronchitis. But a little examination of the subject will serve to explain the apparent inconsistency. In certain cases of bronchitis in which the obstruction is due simply, or mainly, to the swelling of the membrane, and is incomplete, the air finds access to the cells in consequence of the power of the inspiratory act being sufficient to carry it there in spite of the narrowed passages; but it is not readily expelled from the cells, because the obstacle afforded by the narrowed tubes is too great to be fully overcome by the relatively weaker act of expiration. As a necessary result, over-distension of the cells ensues, and, if sufficiently continued, emphysema, or permanent enlargement of the cells, takes place. On the other hand, if, in addition to the diminished calibre of the bronchial tubes, they are obstructed by plugs of mucus, there follows total obstruction in a portion of the tubes to the entrance of air into the

cells *with inspiration.* The obstacle is now especially present in inspiration, this act forcing the plugs of mucus into the smallest extremities of the tube. But in expiration the force of the air already within the cells tends to remove the mucus from the smaller, to the larger tubes, and the resistance is therefore much less, and perhaps but slight. As a consequence of this less, or slight obstruction *in expiration*, the cells empty themselves of their contained air, and become collapsed, the total obstruction in inspiration, preventing them from becoming refilled. The plugs of mucus, in short, act precisely as *ball valves*, opposing the passage of air *into* the cells, but permitting its escape *from* the cells. Under these circumstances the lesion directly opposite to that of emphysema occurs, viz: collapse.

A late writer, Dr. W. T. GARDENER, accounts for the production of emphysema by regarding it as a secondary result of collapse of more or less of the pulmonary lobules.* He supposes, that, in consequence of obstructions in the bronchial tubes, collapse of the cells takes place in the manner just described, and, as a consequence of this collapse, an additional burthen being thrown on the non-collapsed vesicles, the latter become over-distended, or emphysematous. It is perhaps sufficient to say with respect to this theory, that, were it correct, in cases of chronic pleurisy in which the entire lung on one side is compressed into a small solid mass, we should expect emphysema of the lung on the side unaffected with pleurisy to be an uniform result; and it is certainly not true that chronic pleurisy leads, thus, to emphysema.

That chronic bronchitis is involved in the production of emphysema is rendered probable by the fact of the co-existence of the two affections very frequently, if not generally, in cases of the latter. In the three cases reported in this article, more or less bronchitis, evidenced by cough and expectoration, had existed from the date of the symptoms of the emphysema. Now, it is more reasonable to suppose, if there be a relation of cause and effect between the two affections, that the emphysema is due to the bronchitis, than that the bronchitis supervenes on the emphysema. With reference to this subject it would be desirable to determine in a series

* Edinburg Monthly Journal of Medical Science.h

of cases which affection took precedence of the other, or in how large a proportion of instances chronic bronchitis existed during the development of emphysema. Information, as positive as is to be desired, on these points is not easily obtained, inasmuch as, in most of the cases coming under observation, the affection has already existed for a long time, and the memory of the patient with respect to the circumstances attending its development may not be altogether reliable. Moreover, the affection, in a large proportion of instances, is developed gradually, and the earliest symptoms extend backward to youth, or childhood.

But bronchitis is not the only morbid condition involving a degree of obstruction not sufficiently great to deprive the cells of inspired air, but sufficient to keep the cells distended by interfering with the expulsion of the air from the cells by expiration. Spasm of the muscular fibres entering into the composition of the bronchial tubes will lead to the same result. The latter is the morbid condition constituting pure *Asthma.* So soon as emphysema began to be studied, it was found that it was very frequently associated with asthma. These two affections evidently sustain to each other some close relation. The opinion held by LOUIS, and others, is, that asthma is incidental to the emphysema, but there is good reason for believing that the reverse of this is true, viz: that the emphysema is the effect of asthma. In the cases now reported, asthmatic paroxysms occurred from the first evidences of pulmonary disorder, and this is probably the fact in the history of the disease in a large proportion of cases. We can understand why repeated attacks of asthma should induce emphysema. The mechanism is the same as when it is due to bronchitis without spasm. Moreover, bronchitis and spasm are frequently associated; or more correctly, spasm is often excited in connection with bronchial inflammation, although the latter is by no means necessarily involved. On the other hand, no reason can be assigned why the existence of emphysema should give rise to spasm, although, of course, in proportion to the former lesion, the distress incident to the latter condition will be enhanced. In pure asthma the lung necessarily is in an emphysematous state, temporarily, during the continuance of the paroxysm—that is to say, the cells are distended. This distension, by frequent repetition has only to become

permanent, to constitute the lesion. On this question the following extract from a clinical lecture by M. TROUSSEAU, which has recently fallen under notice, is in point:—*

"An illustrious man, M. LOUIS, has confounded emphysema of the lung with asthma, attributing the latter to the organic pulmonary lesion. This opinion will not bear a minute examination, and the cause of its error is easily found. When M. LOUIS has examined old asthmatics in hospitals, he has found pulmonary emphysema. Not in his private researches, in young men, suffering from asthma, whom I have sent him, who have been examined by eminent men of art, has he been able to find a trace of emphysema. M. LOUIS is right when he affirms that emphysema exists after asthma, but he is wrong when he makes it precede that disease."

Waiving farther remarks (which have perhaps already been too extended) on the causation of emphysema, I proceed to give a brief summary, *First*, of the distinctive events belonging to the symptomatology of the disease; and, *secondly*, a *résume* of the physical signs.

Habitual labor of respiration characterises the affection, the amount of effort manifested in the respiratory acts being commensurate with the degree and extent of the lesion. The labor is especially marked in *expiration*. This is a distinctive feature The difficulty is in expelling the air from the cells. When this difficulty is great the abdominal muscles are made instinctively to coöperate with the diaphragm in the endeavor to compress the lungs as much as possible.

The rhythm of the respiratory acts is altered, the expiratory act becoming longer than the inspiratory, and this inversion in the relative duration of the two acts is proportionate to the degree of the lesion. The relatively prolonged expiration is due, not alone to an actual prolongation of the expiration, but to shortening of the inspiration, and the lesion induces the latter just in proportion as it involves the former.

Anything which tasks unusually the respiratory function occasions increased labor, amounting, in severe cases, to paroxysms of dyspnœa of greater or less severity. Running, walking, especially up an acclivity, (as going up stairs,) or any active exercise, pro-

* Gazette des Hôpitaux, Paris. Virg. Med. and Surg. Journal.

duces embarrassment proportionate to the lesion.* After a time, however, this, and other symptoms, are due, not altogether to the pulmonary lesion, but to the enlargement of the heart incidental to the lesion, the latter being produced by the obstruction to the pulmonary circulation incident to the lesion. The enlargement of the heart, occurring as the result of emphysema, commences with the right ventricle, for the obvious reason that the accumulation of blood consequent on the pulmonary obstruction first takes place in this cavity.†

The occurrence of bronchitis, however mild, and even pulmonary catarrh, are accompanied by notable disturbance of the respiration; which, also, is more or less distressing according to the degree and extent of the emphysema. Bronchitis, even if severe, except in the rare variety in which the inflammation affects the capillary tubes, as is well known, does not occasion embarrassment of respiration, if the lungs are otherwise sound. The explanation of the suffering which it occasions in the emphysematous state is obvious. Emphysema compromises the capacity of the lungs for respiration in the modes already mentioned. In consequence of this lessened capacity, the patient when free from bronchitis, or any superadded affection, is compelled to use the organs fully, to their utmost ability, and with more or less labor, in ordinary respiration. Now, if the lungs are sound, in ordinary respiration, all the air vesicles are not expanded. In other words, a healthy person has more lung capacity than he requires for ordinary use. He has a superfluity of cells, which are held in reserve for any emergency. Bronchitis involves more or less tumefaction of the bronchial mucous membrane, and consequent diminution of the calibre of the bronchial tubes. But this is not felt, inasmuch as a portion of the reserved cells are brought into use to compensate

*In a case which came under the writer's observation, the patient complained that he could not laugh heartily without losing his breath and suffering from dyspnœa. Deriving much of his enjoyment from telling, and listening to good stories, he felt this inability to be one of the most serious of the inconveniences attending the disease.

†Dr. WALSHE states that the number of respirations per minute is not increased, but diminished in emphysema. This is probably true of some cases, but that it is not the rule, is shown by the cases reported in connection with these remarks.

for the contraction of the bronchial tubes; a little more force of inspiration is instinctively employed, and no dyspnœa is experienced, nor any evidences of difficulty manifested. On the contrary, the emphysematous patient affected with bronchitis, has no reserved capacity of lung for this, or any other emergency. The organs in his best estate being taxed to the extent of their ability to perform the function of hematosis, whenever the supply of air is diminished the want of breath is felt, and the symptoms incident to dyspnœa are present. The effect of bronchitis occurring in connection with emphysema is illustrated in each of the three cases reported, especially in the last of the three cases, the difficulty of respiration in that case being very great and apparently placing the life of the patient in danger. If I have succeeded in making this explanation clear, it will be understood why it is that bronchitis is a very different affection when it is associated with a considerable amount of emphysema, from what it is when it occurs in a healthy person.

Capillary congestion most marked on the face; next, on the upper extremities, and more or less over the whole body, is a symptom, unless the lesion be slight. This symptom is proportionate to the secondary heart affection, and its presence in a marked degree is one of the evidences of the latter complication. The symptom is especially marked during paroxysms of difficult respiration, and may then, and in some instances habitually, be conjoined with more or less lividity of the prolabia.

The expression of the patient is anxious, and denotes distress in proportion as the respiration is laborious, and the sense of breathlessness felt. It will, however, often be observed that, owing to the influence of habit, patients are not conscious of the respiratory effort which is apparent to others. It is remarkable that persons in whom the lesion exists in a degree to cause habitually labored respiration, enlargement of the heart also existing, manage to continue in occupations requiring considerable muscular exertion. This was true in the first and third of the cases reported in connection with these remarks.

Smallness and feebleness of the pulse characterize the affection, and these characters are more marked in proportion to the amount of heart complication.

Coolness or even coldness of the surface is another symptom, bearing some relation to the emphysema, but more to the consecutive disease of heart.

As in all affections involving difficulty of respiration, the embarrassment is greater in the night, than in the day time; and paroxysms of dyspnœa oftener occur during the night.

Paroxysms are excited by any thing overtasking the respiratory function, but they are especially due to catarrh, bronchitis, and spasm of the bronchial muscular fibres. The odor of feathers, which provokes attacks of asthma in some persons who are not subject to that disorder under other circumstances, in one of the cases reported, always occasioned insupportable dyspnœa.

More or less cough and expectoration, certainly in many cases of emphysema, are habitual; and the acts of coughing are characteristic. The coughing is violent, spasmodic, resembling, as stated in the notes of one of the reported cases, pertussis exclusive of the sonorous inspiration. The existence of cough and expectoration, conjoined with the difficulty of determining by means of physical signs in this affection, the presence of a tuberculous deposit, would lead us to have apprehensions of the latter oftener than we do, had not statistics determined that tuberculosis and emphysema are not often associated. The state of the lung in emphysema appears to exert a protective influence against the deposit of tubercle.

The symptomatology of emphysema is quite significant in a diagnostic point of view, but taken in connection with the physical signs, the discrimination of the disease is positive and easy. *Inspection* furnishes some characteristic appearances. In the variety of emphysema characterized by increased volume of the lungs, the chest is permanently distended. This enlargement is general, or partial, according as the emphysema affects the whole, or a portion of the pulmonary organs. It is rare that lesion is universal, and it is seated at the upper portion of the lungs in the great majority of cases. The prominence is then marked in the supra clavicular and infra clavicular regions. The parts here may not only be prominent, but bulging. It is rare that the lungs on both sides are affected in an equal degree, and the lesion may be limited to one side. In the three cases now reported the upper portion of

the lungs on both sides were especially affected, and on one side more than the other, the latter is generally the fact. It is very rarely the case, if ever, that the lesion is equal in degree on both sides. In two of the cases the greater amount was on the right, and in the other case on the left side.

The expansive movement with inspiration is limited, becoming sometimes almost null. The chest is permanently expanded. The increased volume of the lungs resists the forces by which the contraction of the chest in expiration is produced. Hence, of necessity, the expansion is correspondingly diminished. The elevation movement is alone conspicuous, and this, especially in a paroxysm of labored respiration, becomes marked. The chest, in the language of Dr. WALSHE, already quoted, "moves upward as in one piece." Owing to the forcible contraction of the diaphragm acting upon the false ribs, the lower part of the chest appears to contract with inspiration. This is apparent sometimes, not real, owing to the intercostal spaces being drawn inward, exclusive of the ribs, but the latter, in some instances, are also contracted, as was exemplified in one of the reported cases.

Different observers express different opinions respecting the permanent effect on the intercostal spaces. Dr. STOKES stated that the normal depressions between the ribs are preserved in this disease. This may be true, as remarked by Dr. WALSHE, when the emphysema is of the atrophous kind, and the volume of the lungs is not increased. It is certainly not true of cases characterized by a marked increase in the volume of the lungs, as was illustrated in each of the cases now reported. A positive statement on this point, even in opposition to so high an authority as Dr. STOKES, is the more admissible, inasmuch as the matter is one of simple clinical observation.

If the lesion be extensive, affecting both sides, the form of the chest is notably altered. The anterior flattening is lost. The thorax, as stated by ROKITANSKY, becomes *barrel-shaped*, the ribs pursue a less oblique direction, approximating to a horizontal line, and the same change is observed, after death, in the direction of the fissures dividing the pulmonary lobes.

Percussion elicits an abnormal degree of resonance. The vesicular quality is not lost, so that the sound is readily distinguished

from the tympanitic sonoriety transmitted from the abdomen, or due to air in the pleural cavity, in pneumo-thorax. The increased proportion of air to the tissues, and the tension of the thoracic walls causes an admixture of tympanitic and vesicular resonance, giving to the percussion note a ringing, drum-like character. This modification, and the abnormal sonoriety will be relatively more marked, of course, on the side in which the emphysematous distension is greatest.

The signs determined by *Auscultation*, taken in connection with those obtained by the foregoing methods, are distinctive. If the patient, at the time of the examination, labor under bronchitis, the bronchial râles are usually extremely loud, especially the sonorous and sibilant râles. They are frequently heard at a distance. They may accompany both acts of respiration, but they are louder and longer with the act of expiration, and sometimes limited to this act.

When the conditions producing the bronchial râles are absent, the respiratory murmur, if present, is characterized, *first*, by an abnormal diminution in intensity. It may be inappreciable, as in the third of the reported cases, after the patient had recovered from the attack of bronchitis. If appreciable, a *second* modification consists in an alteration of the rhythm. The inspiratory sound is shortened, and is heard only at the end of the inspiratory effort. The expiratory sound is prolonged, exceeding, by several times, the sound of inspiration. The inspiratory sound may be absent, and the expiratory, only heard; or, on the other hand, the only sound heard may be a shortened, feeble, inspiratory murmur. The change in rhythm, first pointed out, is analogous to that occurring both in pneumonitis, and the stage of crude tuberculosis, due in these affections, to solidified lung. This analogy, however, cannot lead to error of diagnosis. The bronchial respiration of pneumonitis and tuberculosis has other characters, viz: elevation of pitch of sound, the expiration higher in pitch than the inspiration, and, usually, greater intensity in both the inspiratory and expiratory sounds.* Moreover, the associated signs, viz: dullness or flatness on percussion, (the evidences of solidification) are in direct contrast with the abnormal resonance in emphysema.

* See prize Essay by writer.

Bronchophony and vocal fremitus, in emphysema, are either wanting, or slight. These signs, also, are generally marked in diseases involving solidification.

To determine, by means of physical signs, the existence and degree of the enlargement of heart incident to this disease, is much more difficult than to make the diagnosis of emphysema. If the emphysema be extensive, and affect the left side, the heart is overlapped by the overdistended lung, and removed from its normal situation. An impulse is frequently not to be felt. The increased sonoriety of the chest, and the disparity, in this respect, of the two sides, owing to difference in the degree of emphysema, interfere with the attempt to define the boundaries of the organ by percussion. We are to be guided, in forming an opinion with respect to this complication, in a great measure by the symptoms. Palpitation, if a prominent symptom, is strong evidence, but by no means conclusive. I have known this symptom to be so prominent in a case of senile emphysema, that the attending physician supposed the patient to labor under a heart affection, and this alone. I was desired to make an autopsy after the termination of that case, with a view to the discovery of heart disease, but there proved to be a very remarkable degree of atrophous emphysema, which had been rapidly developed, and the heart was sound. Great feebleness of the pulse, amounting sometimes to extinction at the wrist (as in one of the reported cases), marked capillary congestion of the surface; and especially lividity, in connection with palpitation, render it pretty certain that more or less enlargement of heart co-exists.*

Emphysema is an incurable lesion. If atrophy and dissolution of the cell walls have taken place, either as a point of departure for the disease, or consecutively to dilation, it is sufficiently clear that so far as this is concerned, restoration is impossible. Lung

* The reader will bear in mind that in this account of physical signs I have had reference particularly to emphysema, characterized by increased volume of the lungs. In emphysema commencing with atrophy, and not accompanied by marked increase of volume, the physical signs would not be in all respects the same. The differences as respects enlargement of the chest, less sonoriety on percussion, and depression of the intercostal spaces (to the latter, allusion has been made,) will at once suggest themselves. As regards the more distinctive of the physical signs, and symptoms, the two forms of the disease are identical.

structure cannot be reproduced. But so far as the lesion involves dilatation of the cells it is by no means certain that, although a complete cure is not to be expected, a considerable diminution of the lesion may not take place. It is obvious that the management of the disease does not embrace any special medication. We cannot expect that any remedy will act upon the lungs to obviate directly the effects of a mechanical agency—for the mode by which the dilatation of the cells is produced is mechanical. The curative indications relate to, *first*, removing, if possible, the morbid conditions which produce and perpetuate the lesion. We have seen that bronchitis and spasm are the morbid conditions which especially stand in the relation of causes to it. So far as we can control these conditions we are able to prevent the development, and limit the progress of emphysema. *Second*, It is important to avoid every thing which overtasks the respiratory function, and occasions temporary repletion of the cells, evidenced by labored respiration, or dyspnœa. Occupations requiring muscular effort, and active exercise of any description, must tend to confirm and increase the lesion. So any thing interfering with the respiratory function, as the impure atmosphere of crowded rooms, or the inhalation of irritating substances, will have a similar effect. Excitement of the circulation by the use of stimulants, or by other cause, will, measurably, do injury in a similar manner.

It is foreign to the purpose of this article, to consider, in detail, the measures which may be involved in fulfilling these indications; and in connection with remarks addressed to the practitioner of medicine this would be superfluous.

In dismissing the subject, the following practical consideration is submitted as one which should commend itself to the thoughts of the medical practitioner: In view of the probability that, in many instances, before emphysema has advanced to an extent leading, necessarily, to distressing and serious consequences, judicious management may greatly retard, if not arrest its progress, it is a matter of great importance, in the first place, to appreciate the pathology and causation of the affection so far as our existing knowledge enables us to study the lesion in these aspects; and, in the second place, to be familiar with the symptoms and physical signs with reference to an early and positive diagnosis.

ART. II.—ON THE USE OF CHLOROFORM OINTMENT IN RIGIDITY OF THE OS UTERI.

BY G. W. RONALD, M. D., PHYSICIAN TO THE LOUISVILLE ALMS-HOUSE.

THERE are with few exceptions, no accidents to which the parturient woman is subject that inflict upon her a greater amount of suffering than obstinate rigidity of the os uteri. It not unfrequently baffles the skill of the oldest and most experienced practitioner for a long time; and were we to judge from the pain dependent upon this condition of the organ, we should very readily suppose that the life of our patient was in the most imminent danger. This state of affairs as compared with the number of births, is fortunately of rare occurrence; yet it is of sufficient frequency to make the subject one of considerable interest and importance in practice. Various causes have been assigned, by different authors, for rigidity of the os uteri; some attributing it to mechanical contrivances used for supporting the organ, others to the injudicious use of escharotics, whilst others again contend that morbid irritability is the principal cause, and this last conclusion seems to us more rational than either of the others. It is not my intention, however, to enter into an inquiry as to the cause of the difficulty; but to call the attention of the profession to the use of chloroform ointment, as I have found it the most expeditious, reliable, and safe mode of overcoming it. I do not pretend to say that it is a specific, for my limited experience in its use would not justify such a conclusion, having used it in but a few instances, but in these, with the most gratifying results. The first time that I made a trial of it was in the Louisville Almshouse, on the 28th day of January, 1852.

Mrs. C., aged twenty-three, a seamstress, was admitted on the 25th, reputed to be of respectable family, full and plethoric habits, nine months advanced in pregnancy with her first child. She was complaining of pain in the left side—considerable œdema of the lower extremities—bowels constipated, for which oil had been

repeatedly taken, urine highly colored and scanty. Ordered a Seidlitz powder to be given, and as soon as it operated to be followed with a teaspoonfull of sweet spirits of nitre every two hours. At 7 o'clock on the morning of the 28th, she was taken in labor. I saw her at 10 o'clock. Upon making an examination, the os uteri was sufficiently dilated to ascertain a head presentation, though the membranes were not ruptured. The pains were powerful and strong, continued to return at short and regular intervals, and I consoled myself with the thought that I should be detained but a short time, yet hour after hour passed and still the os uteri had made no perceptible progress towards dilatation. The woman had become restless and despondent, intense thirst, sickness at the stomach with constant retching, throwing off the water almost as soon as swallowed. If the os uteri was touched she complained of pain, it was hot and unusually rigid, feeling as if a tight band or cord had been drawn around the neck of the organ, which was resisting and unyielding. Having waited upon nature to overcome the difficulty until the patience of the woman, as well as of her attendants was completely exhausted, I determined to resort to some of the remedies usually recommended. Accordingly the arm was tied, and blood abstracted to approaching syncope. Tartrate of antimony, and the warm bath, all in their turn were brought into requisition; yet the condition of the organ had changed but little, though the membranes at this time had given way and discharged a portion of liquor amnii. These means having failed to procure the desired effect, I went to the office for the purpose of making an ointment of belladonna, but was disappointed in finding none in the house. When I was in the act of sending to town for the article it occurred to me that the ointment of chloroform might as readily relieve rigidity of the os uteri, as contraction of the muscles of the extremities, which I had often seen it do, having had it applied to my own person in an attack of cholera, by my friend and preceptor, Dr. T. S. BELL. Taking this view of the subject, I determined to try it, though not without some doubts and apprehensions, for I knew not what effect it might have upon the child, or upon the hot and irritable os uteri. The ointment was prepared by taking one drachm and a half of chloroform and thoroughly incorporating it with one ounce of

simple cerate; which was freely applied principally upon the external surface of the neck of the organ. At the time of the application the woman complained of slight smarting pain which passed off in the course of a few minutes, and had it been applied at the commencement, or during contraction of the organ, she would have made no complaint, as was fully proved in the subsequent cases in which I used it. Upon making an examination, twenty-five minutes after the application of the ointment, I was surprised to find the os uteri dilating rapidly, soft and pliant; and in one hour and twenty-seven minutes after its first application the woman was delivered of a fine, robust and healthy boy.

I am well aware that any manual interference on the part of the practitioner, in order to terminate protracted or lingering labor, is condemned by some of the ancient writers upon obstetrics. Dr. BLUNDELL, in his valuable and scientific work reminds us in every chapter that "meddlesome midwifery is bad." This I suppose no one will doubt. But surely no well informed physician, in this age of improvement and advancement, both in the arts and sciences, when every thing seems to be moving on with almost telegraphic speed, will condemn the use of any remedy that we may have at our disposal for shortening the pangs of one of the most painful processes in the parturient woman.

ART. III.—REMARKS ON PLEURODYNIA.

BY WM. J. CHENOWETH, M. D., OF DARWIN, ILLINOIS.

I have observed in quite a number of cases of intermittent fever, that Pleurodynia accompanied them. In nearly every case that I have been called on to treat the impression of the friends or parents was that the patient had pleurisy or pneumonia, and they were rather incredulous when told that there was nothing serious the matter. I was more forcibly reminded of this form of Pleurodynia by a Homœopathist who insisted that he could cure every case of pneumonia he met, in two or three days, and detailed the case of a blacksmith who was attacked suddenly and violently with pain in his side increased by taking a long breath and who was relieved in less than twenty-four hours so as to be able to go to work. I suggested that it might have been neuropathic, but although he admitted that he did not make a physical exploration of the chest with the view of determining, yet he was perfectly satisfied of the nature of the affection; he had seen it often, and had been in the habit of treating it for years.

In Kentucky I had often seen pleurodynia, but I had never seen it assume an intermittent form, and when I first met the disease here I was surprised to find that it did not yield to rubefacients and rest, but seeing it assume a periodic form I treated it successfully with quinine, and the disease being of frequent occurrence and always periodic I was finally led to look upon it as one of the protean forms of miasmatic fever.

On the 9th day of Dec., 1853, I saw a boy six years old who had suffered for about two months with an intermittent fever, but was now convalescent. He was taken, a few hours before I saw him, with severe pain under his right nipple which extended to the scapula of that side. He would cry out at every inspiration. I examined him as carefully as I could but did not detect the least abnormal sound in his respiration, the vesicular murmur was clear and distinct. I ordered him to be rubbed over the affected side

with volatile liniment. The next evening he was suffering as on the previous day, having been attacked about the same hour. I now gave him quinine and ordered the liniment to be rubbed over the spine. I heard no more of the pain for about two weeks, when he was again attacked as before, and this time it yielded at once to the same remedies I had before employed.

In February, 1854, a Mr. Adams called at my office to be cured of a quartian ague accompanied with a distressing pain in his left side and under the scapula of the same side; I rubbed a liniment composed of spirits of turpentine and chloroform over the spine, which shortened the paroxysm more than one half. I ordered him to have his spine rubbed at the next expected time of the chill; he did as directed and had neither chill nor pain. But it again returned in a few days and was again cured in the same manner.

In the early part of March I went three miles to see a boy eight years old, said to have pleurisy. I found him suffering with an intermittent pleurodynia which yielded readily to quinine.

I was called on to prescribe for a boy twelve years old, in town, on the 12th of April; the boy's father had been at my house several times during the afternoon, and was very impatient to see me, but having gone to the country I did not return until after dark. I went to see him as soon as I returned, and found him in great distress, scarcely able to draw a breath without crying, and the family very uneasy, thinking that he had the "winter fever." On examining him, I found the same state of affairs as in the last case, only more aggravated, the fever and pain lasting from noon until near midnight, but quinine arrested the fever, and in less than forty-eight hours he was running about town.

I have met with quite a number of similar cases, but these are enough to warrant the conclusion that unless the patient be carefully examined, it is easy to make out a case of pleurisy or pneumonia where none exists, and to cause the patient a week's sickness by depletion, when we are called on to treat a simple intermittent pleurodynia.

Bibliographical Notices.

ART. IV.—*History of the Epidemic Yellow Fever at New Orleans, La., in* 1853, by E. D. FENNER, M. D.

Tableau of the Yellow Fever of 1853, *with Topographical, Chronological and Historical Sketches of the Epidemics of New Orleans, since their origin in* 1796, *illustrative of the Quarantine Question*, by BENNET DOWLER, M. D.

WE resume in our present number the analysis of the histories of DRS. FENNER and DOWLER, and shall make such extracts from both, without much comment, as may suffice to illustrate the several remaining topics of which they treat.

Both papers contain very full statistics of the epidemic; these have been collected with great care and are as accurate as statistics usually are, under more favorable circumstances. There is some discrepancy in the figures of the two, due partly to the difference in the dates, but this does not materially alter the result. We shall transfer the statistics of Dr. FENNER showing the number of cases that occurred and the mortality, in the five months from the 1st of June to the 1st of November.

"*Mortality of the Epidemic.*"

Months.	Total Deaths.	Yellow Fever.	Other Diseases.	Not Stated.
June,	665	49	581	45
July,	2077	1407	559	112
August,	6285	5189	689	357
September,	1681	1070	489	113
October,	676	265	438	73
	11,335	7870	2765	700

"This table presents the deaths from Yellow Fever, as shown on the *burial certificates*. It is generally admitted that *six-sevenths*

of the certificates in which the cause of death was *not stated* during the epidemic should be added to the yellow fever list, which, being 600, would make that list amount to 8,470. (The table of Dr. DOWLER makes the number 8,400.) Taking this as correct, and having *some certain data* to go by, we may now make an *approximative* calculation of the whole number of cases of yellow fever that occurred in the city during the five months above specified, and also the general rate of mortality for the whole.

	Cases.	Deaths.	Loss per cent.
Charity Hospital,	3052	1765	46
Howard Association,	10500	3150	30
Maison de Santé,	338	97	28
City Workhouse, 1st dist.	89	13	15
Touro Infirmary,	523	213	40
Boy's House Refuge,	21	6	28
Girl's House Refuge,	21	1	5
City Prison, 2d dist.	30	5	16
Lunatic Asylum,	8	0	0
Board Health Infirmary, No. 1,	343	155	45
" " " No. 2,	423	207	48
Totals,	15,858	5,613	311

"We thus have 15,858 cases, with a loss of 5,613, which is at the rate of 35½ per cent., inasmuch as all these deaths were certified by physicians; when deducted from 7,870, the total of the same class, it leaves a balance of 2,257 deaths, to be distributed amongst other hospitals and infirmaries, asylums and private practice. If we consider these 2,257 deaths to be 20 per cent. of the whole number of cases treated in the last mentioned quarters, it would show 11,285 cases, which added to 15,858, the number of cases above ascertained, would give a probable grand total of 27,143 cases treated in the city during the time specified.

"Estimating the probable population of the city at 100,000, during the epidemic, it thus appears that upwards of *one-fourth* of them had the fever; and of those who were attacked, within a fraction of 29 per cent. died, being nearly 8 per cent, of the estimated population. Of course these results would have to be different if we either raise the amount estimated for the population, or add to the list of *certified deaths* by yellow fever six-sevenths of those in which the cause of death was *not stated* during the prevalence of the epidemic. Every other city or town visited by this epidemic was at least *decimated*, and some of them more."

"The great epidemic of 1847 only caused about 3000 deaths in this city and Lafayette, which were then separate, but are now united."

During the prevalence of yellow fever, which by its malignity and unprecedented mortality almost exclusively absorbed public attention, other forms of fever, such as typhus, typhoid, remittent, intermittent, congestive and scarlet, nevertheless existed, and contributed to swell the number of deaths; the *mortuary* reports of the Board of Health, during the months of June, July, August, and September, show that "in the month of June the deaths from all the fevers specified amount to 143, of which yellow fever was 46. In July, all fevers 1482, yellow fever 1380. In August, all fevers 4962, yellow fever 4791. In September, all fevers 779, yellow fever 722. The total number of deaths from *all fevers* during these four months, as published, was 7472; of which 6945 died of yellow fever, and 527 died of other types."

"From these *mortuary* statistics it will be seen that during the reign of the *great epidemic*, which slew its thousands, people likewise died of *all sorts of fevers*. The statistics of the *living*, which I shall now present from the Charity Hospital, also show a similar variety of fevers prevailing together, though in somewhat different proportions." We omit the table of patients received into the Charity Hospital during the four months specified, but learn from it that there were admitted of *all diseases* 6037, of which 4370 were for *fever of all kinds*, 3052 were yellow fever, 942 were intermittent, and a varying proportion of the other types of fever, for the several months.

Dr. DOWLER presents some interesting details touching the prevalence of other diseases and the rates of mortality from them during the existence of the epidemic. He says, "as the epidemic increased the mortality from other causes was little affected, particularly after the month of July. For five months, ending June 25th, the average weekly mortality from yellow fever was about 4, from other diseases 116; the next five weeks gave an average for yellow fever of 280 per week, other diseases 160. The next four weeks ending August 28, gave a yellow fever average mortality of 1,211 per week, or by weeks respectively, 967, 1,288, 1,346, 1,243, aggregate 4,844; while for the same time, the average from other causes was 157, not including an average weekly mortality of 71, reported as deaths from causes unknown, and generally supposed to have been deaths from yellow fever. During

the next four weeks ending September 28th, the average weekly deaths from yellow fever was nearly 200, while for the same time the average from other known causes gave 65, and deaths from unknown causes a fraction over 16."

"From the last week in May, when the weekly mortality was for yellow fever 1, and for all other diseases 139, the non-yellow fever mortality vibrated but little until after the week ending the 23d of July, having ranged from its maximum 158, for the week ending 25th of July to its minimum 129, for the week ending July 9th, but for the week ending July 23d it rose to 188; the next week it reached its maximum for the season, that is 192, at which time the epidemic was rapidly increasing, 1,409 having died, 1,121 in the two preceding, and 1,325 in the three preceding weeks. About the 9th of July, the epidemic, as such, began, so that the ratio of mortality from causes other than yellow fever, was not much disturbed during the greatest fury of the epidemic until the week ending September 4th, after which it declined to 102; but for the next week it rose to 120, nine less than on the 9th of July, when the epidemic appeared, and 19 less than the week ending May 28th when the first death from yellow fever was reported. In the week ending the 21st of August, which gave the maximum of deaths from yellow fever, that is 1,346, the mortality from other diseases was but 152, exactly the same as for the week ending July 2nd, when, as yet, all the deaths from yellow fever beginning with May, were but 47. So that the ratio of mortality, independent of the yellow fever element during its unparalleled prolongation was but little changed except during the last two precursory weeks of July. Thus the epidemic caused but a slight oscillation among other maladies, while its pestilential waves rolled over the devoted city."

"If the epidemic be considered in a larger view, by months, it will be seen that its collateral influence is scarcely manifest. Mortality from causes other than yellow fever, for June, 581; for July, 559; for yellow fever for June, 40; for July, 1,406, not including 45 for the former month, and 112 for the latter, under the head of unknown or *not stated.*"

"The greatest number of deaths in any one day, 283, of which 239 were from yellow fever, occurred on the 22d of August. The greatest number of deaths from the fever, in any one month, was in August, amounting to 5,189, or by adding the unknown, 5,242; by adding all the deaths, 6,235; an average exceeding 201 per day; about 9 every hour; one every six or seven minutes! for a whole month!!"

Dr. FENNER gives several tables showing the number of cases of the various forms of fever and their mortality, and reiterates the

opinion previously stated as to the probable identity of cause. "It is quite common to see these various types of fever interchange or run into each other, just as is seen in the country where the intermittent and bilious remittent are supposed to originate from the same remote cause."

Dr. DOWLER furnishes some interesting facts in regard to the ratio of mortality of the sexes and among children. Upon these points Dr. FENNER gives no information in detail. Dr. DOWLER says, "according to the report of the Howard Association, published late in December, the Society had under its care during the epidemic of 1853, no less than 11,088 yellow fever patients—5,203 males, 5,885 females—of whom 2,942 died and 8,146 were cured. The predominance of female patients in the above enumeration is remarkable, inasmuch as that sex is the least susceptible to the yellow fever, and contribute to the mortality from this disease in a ratio greatly inferior to males. The most probable explanation is this—females preferred the Howard Hospitals to the Charity Hospital, and the City Hospitals established by the Board of Health."

"In order to ascertain approximatively the proportion between the mortality of the sexes, I selected the first day of August, counting all the interments from fever, as distributed among the letters of the alphabet, and among the following cemeteries, in Mr. MAGINNIS' List of Interments:"

	Males.	Females.
Cypress Grove, No. 2,	3	2
Protestant,	1	1
Charity Hospital,	21	9
Lafayette,	24	11
St. Patrick's,	15	10
St. Vincent,	13	8
Total,	82	41

"Hence it appears that the mortality of females, is, for 1853, exactly half as great as that of males. This high ratio of female mortality is, however, one of the most extraordinary features of the late epidemic. Of 1,450 who died of yellow fever in August, September and October, 1841, but 220 were females, or nearly one in seven. The ratio of mortality among children will probably be found enormously high from fever in 1853, compared with preceding years. This will appear obvious by Mr. MAGINNIS' list, compared with the following extensive analysis of the epi-

demic of 1841; thus—I made thirty-three series, each consisting of thirty persons, I then took the youngest one in each series, (among these 990 dead) which gave these ages: 15, 17, 17, 2, 5, 20, 19, 16, 20, 17, 15, 17, 18, 19, 8, 2, 7, 18, 18, 19, 8, 6, 8, 2, 15, 3, 18, 14, 2, 18, 3, 5, 19. Scarcely an infant in the whole series!"

"In order to test approximatively, the ratio of infantile deaths from fever, I counted the ages of all fever victims who were interred in the following cemeteries, on the 10th of August, namely, Cypress Grove, No. 1 and No. 2, and St. Patrick's, amounting to eighty-nine known ages, and two called 'infants,' (say ninety-one) among which were two aged 2; one aged 3; one 4; which with the two infants, make six out of ninety-one—a result which could not have been anticipated from the history of anterior epidemics, as the very young and very old, as well as women and negroes, had always suffered less than other classes."

The observation of Dr. FENNER accords with the statistics of Dr. DOWLER in regard to the prevalence of the disease among children in 1853; he remarks, "one of the most extraordinary features of this epidemic is presented in the fact that the natives of the city, *both white and colored*, have suffered severely, and many of them died of it. This is generally admitted, and beyond dispute. Children who were born since '47 have suffered most; but many born previous to that time likewise suffered, and some of them died of black vomit. It may be stated generally, that all children, and young persons in the city, who had never had yellow fever previously, were attacked this year. Of course there are some exceptions to this, as there are to every general rule."

Although the mortality was greater among negroes during the epidemic of 1853 than was ever before known, it was not sufficient to invalidate the opinion based upon past experience as to the immunity enjoyed by the African race. Upon this point, Dr. FENNER speaks in general terms to the following effect: "This epidemic affected unacclimated negroes, or those who had never had yellow fever before, equally as generally as it did the white population, though not so severely. This is equally true of the mixed races generally. It is a well established fact that there is something in the negro constitution which affords him protection against the worst effects of yellow fever; but what it is I am unable to say. During an epidemic he will take the fever almost, if not fully as readily as the white, but it will be altogether milder and less dan-

gerous in its tendency. In short, it will correspond more exactly with the bilious remittent fever that prevails in the country, and requires precisely the same treatment. And yet this type of fever in the city negro must be produced by the very same cause that gives rise to malignant yellow fever in the white race. Occasionally we see the hemorrhagic diathesis of yellow fever displayed in the negro, but it is by no means common. The least mixture of the *white race* with the *black* seems to increase the liability of the latter to the dangers of yellow fever; and the danger is in proportion to the amount of white blood in the mixture. Very few negroes ever die of yellow fever in this city; but I learn that a considerable number have been lost on the plantations this year. The cause of this may be readily imagined when it is recollected that yellow fever never prevailed on the plantations before, and of course most of the physicians were not familiar with its treatment."

"I consider the danger to negroes from yellow fever to be no greater than that from *bilious fever* in the country, and *not half so great as from congestive intermittent.*"

Dr. DOWLER presents more explicit testimony, in the form of statistics, in regard to negro immunity. "Although non-creolized negroes are not exempt from yellow fever, yet they suffer little from it, and very rarely die. On the other hand, they are the most liable to suffer from cholera. As an example of the susceptibility of this race, take the year 1841; among 1,800 deaths from yellow fever, there were but three deaths among the blacks, two having been children, or 1 in 600, or 1 in 14,000 of the whole black population."

"The same immunity from death in this disease is enjoyed throughout the yellow fever zone by the black race; for example, in the epidemic in Charleston in 1838, the official report shows that among 538 interments of yellow fever subjects, only seven were blacks, or about 1 in 50, and these were, probably, as usual, not city creoles. This is, however, an extraordinary mortality compared with the same class in New Orleans."

"In order to ascertain the proportional number of deaths from fevers among blacks in 1853, I adopted the following plan, comprehending the six months ending November 1st: I analysed more than the one-fifth of the list of deaths by Mr. MAGINNIS, beginning with the letter A and ending at D, running through all the twelve

cemeteries for the six months. The result is fourteen deaths among blacks from fevers of all kinds; two of whom, a child aged eight days, and one aged ten months, were born in New Orleans; of the residue four are mentioned under the term "child," one aged nine months, and one two years; one nine years; the birthplace of the residue, one excepted, unknown The two born in New Orleans that died, aged eight days in the one case, and ten months in the other, were doubtlessly not the children of creolized parents, many of whom are brought from more northern States and kept here for sale, not only to the citizens of the city, but to planters in the country. Among thousands of these, it would not be surprising if fourteen should die of all kinds of fever in six months, if no epidemic had existed, and if the entire race had been unsusceptible to yellow fever. In round numbers the total mortality had been 2,500—that from yellow fever about 2,000—during the period above indicated, in which fourteen blacks, many of whom were infants, died of fevers of all varieties, in a black population of 30,000. Had these deaths all been from yellow fever, they would not, so far as this worst of epidemics goes, affect the argument that while the black race is susceptible to yellow fever, if born out of the city, death is, from the disease among them, a very rare occurrence; a majority of city practitioners never, perhaps, saw a single fatal case."

This immunity of the black race is wholly incompatible with the rumor, which prevailed during the epidemic, that the disease was an "African Fever." Dr. FENNER scouts this notion and says, "I would like to know what is meant by the term. There is no part of Africa where so malignant a fever is generated as the yellow fever of America; and those who assert that this was an African fever, ought not only to point out its *distinguishing features*, but also show how it was introduced here. The truth is, the epidemic was nothing but an uncommonly malignant yellow fever, presenting all the characteristic symptoms of that disease as it is generally seen here, but in a more virulent degree."

Dr. DOWLER is equally positive on this point: he remarks that "it does not appear that yellow fever prevails under an African sun; although the epidemic in New Orleans in 1853 came well nigh getting the name "African yellow fever," "African plague," it was for weeks so called!

The African is the only race to which this exemption attaches; "the Necropolis of New Orleans represents all the fundamental types, if not every variety of the human race, Caucasian, Ameri-

can, Asiatic, and African—all of which except the latter—become the ready victims of yellow fever, the creolized excepted. I have seen in the same day, the copper-colored American from the low lands of the Mississippi, and the Scandinavian from the icy mountains of Norway, dying of the epidemic. The Indian race is equally susceptible as the white race to yellow fever, although some writers have denied this."

The Howard Association had under its care, during the epidemic 11,088 patients; "of this number (5,845) much more than half were Irish; German, (2890) nearly a quarter; French 436; United States (716) less than one in sixteen of the whole. Hence, it appears that Ireland and Germany give 8,735; other countries 2,353."

"Omitting Spain and the United States, the yellow fever zone contributed but nineteen; the plague zone of the East, as Palestine and Greece, but seven to this formidable aggregate of 11,088."

Dr. DOWLER in his "Tableau of Creole mortality in 1853 from yellow fever," adduces exceedingly interesting statistics bearing upon the disputed question as to the liability of Creoles to this form of fever. Dr. D. is very decided in his opinion upon this question; he avers that "congenital city creolism, that is the constitutional modification incidental to the being born of Creole or thoroughly creolized parents, with continuity of city residence, exempts the individual from yellow fever with nearly the same uniformity that vaccination prevents the small-pox or the varioloid. The varioloid is, as all know, modified small-pox, happening to one who has undergone vaccination, or the small-pox previously, the frequency of which is probably as great as the frequency of yellow fever among city Creoles who have never absented themselves for one or more winters in Northern climates."

In order to comprehend the full and precise import of this opinion, it is necessary to understand clearly what Dr. DOWLER means by Creolism; he restricts the term in such a manner as to exclude many who have heretofore been loosely ranked as Creoles by writers on yellow fever. "In Louisiana, every native, be his parentage what it may, is a Creole. They are convertible terms."

"Although the word *Creole* in its usual acceptation means a white person, it applies to all races, as Creole negroes; it even

applies to the inferior animals and things; a creole chicken, egg, or cow, is worth nearly twice as much as one from a distant State; while a creolized horse, after considerable risk, becomes better, being larger, than a creole horse. City creolization, whether native or acquired is a practical distinction in the business of New Orleans."

"The word Creole is generally used in sense too latitudinarian for precise statistical investigation. It is the resident city Creole, not the Creole who migrates every summer to New York, London or Paris, that may hope for as good health as is possible to humanity, while two or three hundred others daily fall victims around him—a definition which excludes a great many called Creoles and one often forgotten, in writing on the subject of yellow fever. Hence arises many apparent contradictions among authors who use the word in different senses."

"In former, still more than in recent times, has this fundamental distinction been overlooked. In a great majority of the works on yellow fever in the West Indies, and even in Louisiana, where Creoles are said to suffer from this disease, the true explanation is, that these persons are *Creoles of the country, not of the city;* or at most, they reside in the latter occasionally, chiefly in the winter, and are, therefore, liable to the disease, though they usually have it in a milder form than strangers, and rarely die."

Dr. DOWLER divides Creolism into the three somewhat distinct varieties of urban or city, rural, and acquired. It will be perceived from the quotation made above, that immunity from yellow fever is enjoyed most largely and indeed almost completely, according to Dr. DOWLER, only by the native city creole, with a continuity of city residence. Country creoles are not so insusceptible; "all born beyond the limits of the city are susceptible to yellow fever on coming into the city or into a village where yellow fever prevails. In 1853, yellow fever has, for the first time perhaps, prevailed to some extent in the rural districts, remote from towns, among isolated persons who had not visited them. But in almost all of these instances the disease prevailed in aggregations of people, which are virtually towns, as the plantations where the population is concentrated at one centre, often forming a village of from 100 to 500 or more persons."

Again, the mere fact of being born in the city is not in itself protective. "Thousands are thus born of uncreolized parents, who pass through the city, as immigrants, or who reside in the city in the winter only. Their return to the city might, in this way swell

the number of the so called Creoles to hundreds every epidemic." A long continuous residence in the city is almost equivalent in its protective influence to native creolism, and the constitutional modification thus produced is not limited to the immediate subject of it, but is transmissible to the progeny. Creolization in a city, whether native or acquired, will exercise its protective force in any part of the yellow fever zone. On these several points, Dr. DOWLER is very explicit. He says, "Creolization in the city, with or without having had yellow fever, is equal as a protection against yellow fever, to congenital or native creolism. This immunity is usually acquired in less than ten years, often in five, but to this rule very many exceptions occurred in the very extraordinary or exceptional epidemic of 1853."

"City immunity, native or acquired in similar cities, as New Orleans, Charleston, Mobile, Pensacola, Havana, Vera Cruz and other places in the present limited yellow fever zone, is probably identical and mutually protective in all such places, while nativity in cities once in the yellow fever zone in which yellow fever has not been prevalent for many years, as in Baltimore, Philadelphia, New York, Boston, Cadiz, Seville and other places affords no protection."

"City creolism both native and acquired is, to a great degree, as before remarked, hereditary or transmissible from parents to children. At least the exceptions to this law are few and fatal, results almost unknown, as may be proved by the bills of mortality though this is like many other indubitable truths boldly denied, particularly since the decline of the epidemic of 1853—the most mortal, erratic and extraordinary ever seen in New Orleans. It will have been seen what warrant the terrorists have for denying creolization."

"Setting aside the epidemic of 1853 and reasoning from what is fully proved by the past—the best exposition of the present—it will be seen what little foundation there is for the utter rejection of creolism and acclimatization, which in former years was rung and is still ringing in the public ear."

As the questions, whether Creoles enjoy immunity from yellow fever or not? whether Creoles die, and in what proportion? are exceedingly interesting, and susceptible of solution to some extent by statistics, we shall quote somewhat fully from Dr. DOWLER the facts which he has with great care and labor collected, touching these points. He says, "the method which I have adopted is as fair as can be conceived, and will give in this particular a com-

pendious view. I selected the two first weeks of August, the middle of the epidemic, as distributed among the twelve cemeteries, and among the different letters of the alphabet, counting all the persons who died of fevers of what kind soever, as the list does not distinguish the fevers—the one from the other—an arrangement the most unfortunate for the merits of the Creole question, because, in any case it will be admitted that Creoles would be more likely to die of any other fever than yellow fever. It will be provisionally assumed that all the deaths marked "fever" were from yellow fever alone. The whole number of deaths during this period among natives of New Orleans is but 21—of this number one was aged five, and two aged seven days; two aged two, one aged three and one ten months; one aged one, three aged two, one aged four, one aged five and two aged nine years. In one case the word "child," in another "infant," are used to denote the age, and in two cases the ages are omitted. Omitting the two infants and the two of unknown ages, probably infants, the average of the remaining seventeen is twenty-six months, or by omitting the two highest ages, the average age will be less than fifteen months. The list here referred to shows that these twenty-one children are all that died of fevers of every kind among all classes of population during fourteen days in the midst of the epidemic. For the sake of illustrating the argument, the least favorable to creolization, as before intimated, let it be assumed that all these died of yellow fever, though there can be little doubt that the whole number were born of unacclimated parents—parents who had not been creolized either by birth or long continuous residence in the city. Even the two aged nine years each, probably were born of parents only temporarily resident in the city during the cooler season of the year, whose summer residences are in the country; or they may have been born of parents who lived here nine years ago, as immigrants or visitors, and who had returned to New Orleans. But let it be admitted that both of these children were born of parents constantly resident for ten years—admit that these children had not been sent from the city to the country, or to the North among relatives, to school, &c., then let these two Creoles be compared with the whole number of deaths from yellow fever, and what will be the result, supposing that they did die of yellow fever and not

from some other fever? The whole number of deaths during these two weeks, as taken from the official daily report of the Board of Health, is 2,702—from yellow fever alone 2,252—from diseases not named, supposed to be yellow fever 114; total deaths from yellow fever 2,369. According to this supposition, waiving, for the present, the consideration of former epidemics, one Creole in 1,184 died of yellow fever out of a creolized city population four or five times greater than the non-creolized or strangers."

"In order to vary the numerical consideration, I selected the first week in September, counting the number of deaths among persons who had been born in New Orleans. This was the more desirable, because at that advanced stage of the epidemic it might be supposed that it would reach persons long resident to a greater extent than in its exception, and, such indeed was the general opinion. Upon examining the alphabetical list as distributed among the twelve cemeteries, nine individuals proved to have been born in New Orleans; one aged two, one three, one seven, one eight years, two aged six months, one eight months, one eighteen months, and one mentioned as an "infant," giving an average age of thirty-four and a half months. This whole number is subject to all the contingencies in the first series; during these seven days the total mortality was 741, of which 560 were from yellow fever, and 33 under the head of "unknown," making 593, leaving 148 for all other diseases. This enumeration does not conflict with, but gives validity to, the explanation given of the former series."

"The St. Louis cemetery No. 1, which represents the wealthy French of the city and of the country, and those immigrating from France, presents the following mortuary tableau for six months, ending with November 1st; deaths from all fevers among individuals born in New Orleans, 6; one aged twenty months, four, respectively, 3, 10, 20 and 22 years, and one styled "infant." The explanations previously given apply here. That only six should die of fever in six months, had no epidemic prevailed, is remarkable, in a mortality of two hundred and six. Had all these six deaths been from yellow fever, it does not, in all probability, invalidate creolism in the least. Three were infants, one a girl, and two still young, who probably had not remained continuously in the city, and who, on returning, contracted the disease."

"The Protestant cemetery is the best mortuary representative of the wealthy creolized Americans, many of whom, however, could scarcely expect immunity during an epidemic, inasmuch as they leave the city annually, in the summer, and educate their children in the North. The interments from all fevers among the natives of New Orleans in this cemetery, for six months ending

November 1st, amount to eight, in a total of four hundred and thirty; one of these is a "child," one aged twenty-two months, three aged two years, one five, one fourteen, and one eighteen years. The latter two were, probably, as usual, truants, who did not stay at home much, if at all, but, having returned, died. Previous explanation will apply here; but, if they be rejected, the mortality from all fevers is, for this cemetery, a little over one for each month."

"The Cypress Grove Cemetery No. 1, is assimilated in character to that of the Protestant. In the former, the total number of deaths among natives of New Orleans from all fevers in six months ending November 1st, is four—one called a "child," one aged two, and one seven months, and one three years, out of 300 deaths; that is, one native infant died in every two months upon an average."

"The worst view of these facts does not overthrow the doctrine of immunity nor afford much aid to terrorists. The creolized dig but few graves in the swamp cemeteries, and if they were much damaged by yellow fever, these cemeteries would tell it."

It will be seen from these statistics that though the general rule of creole immunity is very satisfactorily established, there were yet some exceptions. This is especially true of the epidemic of 1853 which seems to have set at defiance all past experience on this and other points. Dr. FENNER limits his observations on this topic to the epidemic of 1853; we have already quoted his statement that "one of the most extraordinary features of this epidemic is presented in the fact tnat the natives of the city, *both white and colored*, have suffered severely, and many of them died of it. Children who were born since '47 have suffered most." Dr. DOWLER admits these deaths among children born in New Orleans, but thinks that they may be explained in a way that will not contravene the opinion which he holds as to the immunity of genuine city creolism, native or acquired.

"It will, no doubt, be found upon a full examination of these fatal cases, that nearly all belong to the following classes and conditions; although born in the city, their actual residence has not been continuous, but has vibrated like a pendulum between the country and the town, between Northern schools and cities and New Orleans; or they have been born of unacclimated parents whose continuous residence has been less than ten years, often not that many months; or they have been born of parents one of whom is not acclimated; or, finally, they have been born while the parents resided temporarily in New Orleans, (constituting a

large class,) and hence, called Creoles, who, subsequently having come to the city, fell victims, and hence, appear in the mortuary certificates as natives of the city."

Dr. FENNER in his chapter upon "The General Character of the Disease," expresses the opinion that the epidemic of 1853 was more malignant and unmanageable than any previous one; his own observation as far back as 1841 warrants this opinion, and it is substantiated by the testimony of the oldest practitioners of the city; the published statistics of this and other years are further proof to the same effect. The distinguishing diagnostic symptom, black vomit, occurred in more cases than usual, and the tendency to it was evinced more rapidly than in former epidemics. The symptoms of cerebral disturbance were severe to an unwonted degree, and delirium and convulsions were the precursors of death in many of the fatal cases. Suppression of urine was not noticed so frequently in dangerous cases as in former epidemics.

The tendency to hemorrhage, of which the black vomit is a conspicuous manifestation, was not limited to the stomach, but seemed to pervade the entire system. It often occurred to a dangerous and even fatal extent from the nose, gums, bowels and uterus; a case of death from hemorrhage of the scrotum is referred to. In this connection, Dr. FENNER makes some interesting remarks of a practical kind which deserve to be quoted at length. "Hemorrhage, however, was not always an unfavorable symptom, on the contrary, it often indicated the approach of a *salutary crisis*. Indeed, it is *the natural crisis of this type of fever when its course is not interrupted by art.* How often have I hailed with joy the appearance of a moderate hemorrhage from some *safe part*, as the nose, gums or uterus, in the critical stage of yellow fever, when it had been previously altogether uncertain how the case was going to terminate. At this stage of the disease, a small quantity of blood flowing spontaneously from any part except the *stomach* is most generally followed by the happiest effects, reducing any remaining febrile excitement and allaying nervous inquietude. When hemorrhage sets in, however, there's no telling how far it may go before it stops. Believing as I do that it is a *natural critical discharge in this type of fever.* I would recommend that no efforts be made to check it whilst it is *within the*

bounds of safety, but when it seems to threaten life, we should then resort to astringents, styptics, stimulants and tonics."

"Black vomit is nothing but a hœmorrhage from the stomach, and may exist in any degree, from a few particles of blood mixed, as it were, into a quantity of light glairy fluid, presenting the appearance of floating dark specks or flocculi, to that of a rapid and profuse discharge of *pure red blood.* Before this discharge takes place in any degree there is great engorgement of the mucous membrane lining the stomach. The hemorrhage that then occurs is the effort of nature to relieve this engorgement; consequently, if the patient dies without throwing up much black vomit, we find the mucous membrane greatly engorged, thickened, and red or livid; whereas, if the hemorrhage had been *very profuse*, we find the mucons membrane after death pale and softened. Hence we may explain a fact that has been observed by many, viz: that *recovery is more apt to take place after free discharges of black vomit* than after *very slight.* The reason is obvious: in one instance, nature effectually relieves the distressed organ by directly depleting its morbidly engorged blood-vessels; whilst in the other there is not a sufficient discharge to afford any relief."

"When a patient is threatened with black vomit the great indication is to remove that engorgement of the blood-vessels of the stomach which is its proximate cause."

"Black vomit and other hemorrhages rarely occur amongst full-blooded negroes, though I have heard of a number of cases this year, and had one myself. Mulattoes and Quadroons are almost as liable to them in yellow fever as white people, and quite a a number have died of hemorrhages this year. This difference between the black and mulatto must proceed from the mixture of races."

"Black vomit is quite common amongst white children with yellow fever, but they are far more apt to recover from it than adults. I shall say more of this in another place."

"Black vomit is by no means *restricted to yellow fever*, but is occasionally met with in other diseases, such as dysentery, cancer of the stomach, and the state of pregnancy."

The salutary influence of moderate hemorrhage upon the progress of yellow fever is not peculiar to this form of disease; all observant practitioners must have noticed a like beneficial effect from this cause in other diseases. For example, hemorrhage from the lungs in tuberculization of those organs very frequently retards the process of disorganization, and very much protracts the duration of many cases; in pneumonia, the copious expectoration of rust colored sputa materially mitigates the severity of the inflam-

mation; chronic abdominal affections dependent upon or associated with congestion of the portal vessels are often greatly ameliorated and sometimes entirely subverted by an attack of hæmatemesis or melana; in typhoid fever, moderate hemorrhage from the bowels is not unfrequently the immediate precursor of a very decided improvement in all the symptoms; we have seen a number of cases of this fever in which convalescence promptly succeeded a moderate loss of blood in this way.

Dr. FENNER remarks upon another feature of the epidemic of 1853 which was not at all common in other epidemics, viz: a strong tendency to *relapse*. "After the customary subsidence of the fever, at the end of the third day, there would be a period of calmness lasting from twenty four to forty-eight hours; and then the fever would kindle up again, and last for one day or more. This secondary fever was often very dangerous, though it frequently terminated very happily. The interval of convalescence after the first attack was sometimes so long, as to appear more like a *second attack* than a *relapse*. From two to four weeks have been known to elapse between two distinct attacks of the fever in the same person."

Under the head of "Special Observations," Dr. FENNER directs his attention to several special points, such as *recoveries from black vomit*, and *second attacks* of yellow fever; upon these points there exists a difference of opinion and experience among the profession of New Orleans. Dr. FENNER, while he admits that the chance of recovery is almost desperate, little better indeed than *one in a hundred*, when *well marked black vomit* is developed, yet had the good fortune to observe "quite a respectable number of recoveries" from this perilous condition in 1853. Two of these cases occurred in private practice and several were observed in the wards of the Charity Hospital.

The experience of several of the most respectable practitioners of New Orleans accords with that of Dr. FENNER, and he presents their testimony and the number of their cases. "Dr. CHAPPIN, House Surgeon of the Charity Hospital, gives it as his opinion, that *seven per cent* of the cases of black vomit in that institution recovered."

"Notwithstanding all this testimony to the fact of recovery from

black vomit, one of the most prominent physicians of the city, who has practiced here near twenty years, tells me he never knew a case of *unquestionable black vomit* in yellow fever get well."

A like difference of opinion exists as to the liability of persons to second attacks of yellow fever. Dr. FENNER thinks that second attacks may occur under certain circumstances. He says, "I mean by this, persons who have had the disease in former years. In my history of the epidemic of 1847, I mentioned that several instances of this were observed, and the same has occurred this year. There can be no doubt that if a person have a plain attack of yellow fever during the prevalence of a *severe* epidemic, there will be but small probability of his ever having it again, provided he remains in the same place; yet the rule is by no means *invariable*, as I shall presently show. If one has it, however, during a *mild* epidemic, or when there are only a few sporadic cases, his subsequent exemption will not be near so great. Thus there were numerous attacks this year among persons who had had other attacks since 1847, but not many among those who had it that year, or any previous *strong* epidemic."

"I saw no case this year which had been attacked in 1847; but several who had the disease well marked in 1848, and subsequently."

"Dr. JONES informs me that he saw one case in a person who had yellow fever in 1847, and one who had it in 1839."

"Dr. KENNEDY says he never attended a case of yellow fever in a person whom he had treated before for that disease. Dr. K's., experience extends over a period of twenty years."

"Dr. LINDSAY tells me he treated this year at least a dozen cases who said they had had yellow fever before—some of them in 1847; but he cannot vouch for the accuracy of their statements. He had one case this year in a well marked attack. His last attack was mild and only lasted two days."

"Dr. MOSES M. DOWLER, who has practiced here seventeen years, says he never saw a second attack of yellow fever in a person whom he had himself attended, but a good many who said they had it the second time, and had been attended by others—he is disposed to believe that such instances have occurred."

"Dr. W. STONE, and Dr. SUNDERLAND also, say they never knew a second attack, and are disposed to doubt the testimony of those patients who told them they had the disease more than once Both of these gentlemen are of opinion that second attacks of yellow fever are as rare as second attacks of small pox or measles. Dr.

STONE even goes so far as to think that *acclimation once attained is never lost by removal from localities where yellow fever prevails.*"

"It is needless to multiply quotations upon this point, as similar contradictory testimony and opinions might be obtained throughout the profession. The thing is at last reduced to a *matter of opinion*, and cannot be definitely settled. Those who have made up their minds that a person can have yellow fever *but once*, will not be convinced to the contrary *by any facts that can be presented and vice versa.*"

Dr. FENNER devotes but a small portion of his history to the consideration of the "Treatment" of yellow fever; his reason for giving so limited a space to this important topic, as well as the results of the further trial of the "abortive treatment" of fever which has been so extravagantly lauded, for a few years past, by Southern practitioners, will appear in the following extract. "As the main object of this paper is to give a sort of historical narrative of the origin, progress, extent and mortality of the great epidemic which has so severely scourged our city, and the account is already drawn to so great a length, I deem it best not to enlarge it by a discussion of the debatable topic of *treatment.* I could not do justice to this subject, without devoting at least ten or fifteen pages to its consideration, and therefore will defer it to a future period. As many of my professional readers, however, may expect me to say something about the "*abortive treatment*" of yellow fever, so highly extolled in some of my previous writings, I must not pass it by in silence."

"In 1847, and ever since, till the present season, I have been able *promptly to cut short* nearly all the cases of yellow fever I was called to treat in this city; and there was but one year, (1851,) in which there was not a good deal of it to be treated. Several other highly intelligent physicians of this city have done the same. Our chief remedies for this purpose were large doses of quinine and opium, given at the outset of the fever. In reporting my satisfactory success with this treatment, I admitted that the disease treated although certainly *yellow fever*, was of rather a milder type, and that it remained to be seen whether the abortive treatment would be equally successful in a more malignant epidemic. The opportunity has been presented this year, and I must now make a candid statement of the results of my experience.

"When the epidemic broke out, I was one of the visiting physicians to the Charity Hospital, and soon had ample opportunities to test the abortive treatment by large doses of quinine and opium.

It did very well in many cases where there was a *fair opportunity to apply it*, but I soon discovered that it did not display that controlling influence over this fever which it had done over all the yellow fever I had met with for six years previously. I then fell upon a more moderate use of the sulphate of quinine, and finally gave preference to the *ferro-cyanuret*, in combination with blue mass and without opium or morphine. I was pleased with the results, and pursued this course to the end of the epidemic."

"I do not recollect to have treated any case of yellow fever without giving quinine in some form, and am willing to compare results with any physician in the city. I still believe it to be *one of the most*, if not *the most valuable* of all our remedies in yellow fever—in short, that it is just as valuable in this type of fever as it is in bilious remittent. Many physicians tell me they found the sulphate of quinine to fulfil their expectations this year as well as usual, whilst others report quite differently."

"When this epidemic broke out, the sulphate of quinine was prescribed boldly, by perhaps a large majority of the physicians of New Orleans; but from *the injudicious use of it*, which fell under my own observation in the wards of the Charity Hospital, I soon foresaw and predicted the *disrepute* into which the remedy would inevitably be brought, if things went on in that way. My prediction was fulfilled. From the *abuse* of the remedy in the hands of many who knew not how to prescribe judiciously, a popular prejudice rose up against it, and in the eyes of many it was brought into unmerited disgrace. But this has happened to almost every valuable remedy in the whole *materia medica*, and must continue to occur, as long as people will rashly venture to administer powerful medicines, who know little or nothing about medical science. Notwithstanding the obloquy which has been heaped upon this great and glorious remedy this year, it still maintains the high reputation it has long held amongst those physicians who have learned to prescribe it with judgment. If people expect to discover a *sovereign remedy for any special disease*—one that may be pitched into the human body without discrimination or judgment, whenever that disease is found, they are woefully mistaken. The *art of prescribing* medicines is of more importance to the community than the *real virtues* of the medicines; for the former is possessed by but few, whilst the drug stores abound in valuable remedies."

"From all I have heard and seen, I am sure that no one can boast this year of the *extraordinary* success of his treatment, whether he used quinine or not, *calomel* or not, large quantities of medicine or *none at all*. Yet I would by no means wish to convey the idea that the success of the experienced physicians of New Orleans has not been highly commendable this year, considering the virulence and malignancy of the epidemic, and the numerous

difficulties in the way of bad nursing, &c., they had to contend with. For myself, I will state conscientiously that I lost less than nine per cent., of my cases in private practice, to which I was called *in good* time, and had a *reasonably fair chance to treat;* and about 16 per cent. of the whole. I doubt not that many physicians met with equal, if not superior success, and under all the circumstances, I do not think it should be considered discreditable. If the same success had been attained by all the physicians of the city, our population would not have been *decimated* as it has been by this dreadful pestilence."

As the History of Dr. FENNER and the Tableau of Dr. DOWLER were written with special reference to the Quarantine Question, our analysis of them, though already somewhat extended, would be incomplete were we to omit altogether what they have to say upon this topic. They are both decidedly opposed to Quarantine measures, as may readily be inferred from the quotations already made. Dr. FENNER says, "I am not prepared to maintain that yellow fever is *never* communicated *per se*, from person to person. On the contrary, I can readily conceive that, like cholera, typhus, and dysentery, it may sometimss display infectious or contagious properties to a limited extent. I have *never seen* an instance of the kind; but cases have been reported to me, upon such *reliable testimony*, that I could see no other way of accounting for them than *direct communication*."

"Admitting it as true, that yellow fever is capable of regenerating itself in the bodies of the sick, and of thus extending from person to person in close proximity, let us pause a moment and examine *the value* of this fact. At all the places where yellow fever prevails in the United States, it appears at *distinct intervals* of different lengths. It breaks out and rages for a season, disappears entirely, and after a lapse of time returns again. When it re-appears, how often can it be traced, with *reasonable probability*, to infected vessels, goods, or persons? If this can be done in a *considerable majority* of instances, it will be sufficient to make a *rule;* and the instances in which such a connection cannot be fairly traced, must be set down as *exceptions* to the rule. Now, I maintain, after careful observation of the outbreaks of yellow fever at New Orleans for the last twelve years, that no such connection could be reasonable traced in any instance. Nor has it been traced in a satisfactory manner in Mobile, Natchez, Vicksburg, or any other place in the United States, where this disease has prevailed. Hence the *great majority* of the physicians, and others who have had the best opportunity of observing, have come to the conclu-

sion, that epidemics of yellow fever do not *usually*, if *ever*, originate from this source. This is also the uniform conclusion, with but *few exceptions*, of all those who have seen most of this disease in all parts of the world where it prevails, as any one can see who will examine the volumes of testimony that have been published on the subject."

"Again, yellow fever may be contracted in an infected district and conveyed in the person of the sufferer to a place quite remote. In such instances, which are very frequent, and doubtless familiar to thousands of persons in this region, *how often* is it communicated to those who come in contact with it? I will venture to say, *not as often as once in fifty cases.* Many would say, not once in a hundred."

"If, then, it be true that yellow fever is not communicated from one person to another by immediate presence or contact, independent of other influences, oftener than *once in fifty or a hundred exposures*, it would certainly make but a *rare exception* to a general rule; and this I believe to be about the true and real value of the now popular and warmly advocated doctrine of the *contagiousness of yellow fever.* It is equally applicable to *fomites* of all kinds."

"I have now admitted, for the sake of argument, all that is contended for by the most strenuous advocates of contagion, and what does it amount to?—that yellow fever may be conveyed from place to place, in ships, goods and persons; and even be communicated to those who come in contact, yet *this effect is so seldom produced* as to make but *a rare exception to the general rule.* Now, does this afford sufficient inducement for the establishment of *Quarantine*, involving heavy expense, and throwing serious impediments in the way of commerce and travel? *That is the question!* and I only wish that the Legislature, who have to decide and act upon it, were as fully informed as they ought to be, as to all that has been done in regard to it within the last fifty years. France and England, two of the most enlightened and rigid governments in the world, after enforcing Quarantine against yellow fever for half a century, are now abandoning it as *useless.* The reports that have been made to them by the able men appointed to investigate the subject, show most plainly that all that can be done, to either *check* or *prevent* the ravages of yellow fever, consists *in proper attention to cleanliness, ventilation and drainage.*"

A few extracts from Dr. DOWLER will serve very clearly to show what his opinions are in regard to Quarantine.

"If Quarantine be not a fraud on the many for the benefit of the few, it is at least a superstition devoid of any philosophical evidence in some of its most fundamental details—as for instance, in its mystical adherence to the number *forty*, adopted in the dark

ages (1485) by Councils or Boards of Health, being a monstrous compound of medical, legal and theological fancies, founded on the duration of the forty days flood; Mose's sojourn of forty days on Mount Sinai; Christ's fast of forty days in the wilderness of Judea, and the Lent fast of forty days in the Church ceremonial. Hence the Italian *quaranta*, from the Latin *quarantina*—forty days more or less—during which time persons, animals, goods, letters and ships are interdicted, confined, restrained by *coudous sonitaires*, or lazar housed, to the scandal of a fast age, which chides the tardy movements of the locomotive and steamship, and is barely satisfied with the velocity of lightning, which brands with the word *fogy* every thing devoid of rapid progression."

"Old Britain is more progressive than Young America in quarantine. The voluminous report against quarantine, especially in reference to yellow fever, by the Government Committee of Great Britain, submitted in 1852, foreshadows the opinion of the forthcoming report against quarantine even for the plague. That report will show what measures 'will supercede the necessity of those grievous interruptions to commerce and international intercommunication which quarantine, so universally imposed on account of plague, has hitherto occasioned.'"

"Contagionists have during this, as well as during all former epidemics, collected facts to prove their theory. A pedlar, from an infected district, arrives in a town—his pack is opened—he, the family, and many of the villagers die of yellow fever. Exactly the same occurrences (which are mere coincidences) take place a hundred times where there has been no pedlar—no box of goods openéd—no travellers from the infected districts. In one town, a crate of crocks from New Orleans is said to have been the medium of transmitting contagion to the village; but at that very time nearly all the other towns for 500 miles around were falling under the malign influence of the epidemic. It would be most extraordinary if crates, boxes, passengers and pestilence should never happen to get together—not as causes and effects—but as coincidences necessary in the ordinary course of business. If the pestilence got into town before the arrival of a bale of goods, the former did not cause the arrival of the latter. If the man who opens the goods dies of black vomit, together with all of his family, a hundred other families take the disease without any such apparent exposure, and die in like manner. A planter fences up his grounds and secludes himself, family and slaves, and all escape; another does the same thing and all are attacked."

"Those not irrevocably wedded to contagion, might find it useful to study the events which have passed before their eyes within the last seven years."

"The late Mexican war furnishes the most complete refutation of the contagiousness of yellow fever in the absence of quarantine,

so far as negative evidence can go. If the United States Government had tried to devise an experiment, on a vast scale, to ascertain whether yellow fever could be propagated by ships and armies it could not have achieved its purpose more effectually. In 1846, 1847 and 1848, this malady existed in Tampico and Vera Cruz, and was severe in New Orleans in 1847. The troops and the material of the army, leaving New Orleans for Vera Cruz, and Vera Cruz for the interior of Mexico, did not suffer themselves from yellow fever, nor spread contagion through the towns and country. In 1848, thousands of the returning soldiers passed through Vera Cruz in June, where yellow fever existed, and on reaching New Orleans in July and August, a few died out of fifteen thousand who remained in the city and its environs sometime without communicating any disease to the city by means of their goods, army materials, and selves. Thousands thus, without having been quarantined, remained in the city for a time, and quitted it for their homes, in other towns and places, without having communicated the disease to any one. After the reduction of Vera Cruz, yellow fever appeared, and many invalids and sick persons were sent to New Orleans and other places for treatment, in the transports which carried out the troops, yet they did not propagate the disease any where. Thus at least fifty thousand experiments made in Tampico, Vera Cruz and New Orleans, not to name other places, produced no proofs of personal or other kind of contagion, though in both the first named places yellow fever prevailed moderately among residents not acclimated."

"The Board of Health of New Orleans, in an official announcement, shows, that for the month beginning with the 26th of Nov. 1853, that 6,607 passengers from foreign parts, chiefly emigrants, had arrived at our wharves in forty-seven sea-going vessels, by the river route. Now, if we add the number which had previously arrived, to the number which has since arrived from sea, the aggregate will scarcely fall below 10,000, while by other routes, chiefly by the river, the emigrants, absentees and other unacclimated persons, as the steamboat population, coming to the city, in September, October, November and December, forty thousand more may be added, making fifty thousand—fifty thousand living experiments against possible contagion—fifty thousand exposures to all of the possible sources of contagion—the houses, goods, &c., of persons recently dead, including emanations from the sick and dying, during the decline of the epidemic and during the whole of this period—all proving harmless."

"Such vast, yet significant experiments quite overthrow those few cases where the opening of a box or bale of goods is followed by yellow fever,—mere coincidents not causes. There is not the least reason to think that the world, combined for the purpose, could create an epidemic yellow fever or even a single case in any city, street or house, upon the globe."

We might select from the history of Dr. DOWLER many other passages of similar import, but enough has been presented to indicate the strong groundwork of his opinions upon the subject of quarantine. One more quotation from him in regard to the utter futility of some of the means adopted for the purpose of staying the march of the dreadful epidemic will close our notice of his paper.

"The practical method of attacking the *ens epidemicum* or epidemic entity, is no more satisfactory than the theoretical,—as the enfilading the streets with artillery, the combustion of tar, or the smoking of the enemy out of a place. Dr. RUSH and others enumerate such examples. The plague left London, they affirm, as soon as coal was introduced into the city as fuel. Now the part of New Orleans most affected by yellow fever in 1853, was the very part most afflicted by coal smoke, namely, near the St. Mary's market, where the foundries of the city are concentrated, as Leed's, McFee's McCan's, Armstrong's etc. The burning of gunpowder, and artillery firing in the streets and public squares have sometimes been followed by the retreat of the *ens epidemicum*—just as the eating of a salt herring was followed by the recovery of a Frenchman and the death of an Englishman, by fever. The patriotic Board of Health, of which the philanthropic Mayor was chairman, had done all that was possible to stay the march and to mitigate the evils of the epidemic—scraped the streets—lustrated the gutters—provided for the sick—buried the dead, and wisely quarantined the influx of the *uninfected* immigrants,—they had done more; for they gave their personal attention to the sick and dying; in the midst of the crisis, the public mind swaying to and fro like the storm-stricken forest, they yielded to the prevailing opinion. At sun-set the epidemic was regularly, for a time, attacked with great guns. But gun-powder failed. It did worse. Sleep to the sick is the turning point of life—the first glimmer along the dark horizon of the yet dubious morning—sleep was broken—the intellect vibrating between reason and delirium, shattered by the clangor of arms and fever, raved with redoubled violence, and was sometimes quenched at once by a horrid convulsion amid the roar of cannon."

"Among the numerous plans advocated by many, was that of tar-burning. This, too, was tried. But the epidemic raged the more. Terror was supreme."

L. R.

ART. V.—*Address introductory to the Course of Lectures in the Chemical Department of the Vermont Medical College, delivered before the Class of Session* 1854. By. THOMAS ANTISELL, M. D., Professor of Chemistry to the College, and to the Berkshire Medical Institution. Published by the Class of the College. Woodstock; Press of the Vermont Temperance Standard; 1854.

The subject of this lecture is "*Metamorphosis and Metempsychosis*," and the author presents in a striking and beautiful light some of the curious and wonderful phenomena of chemical action. It is an address of rare excellence, abounding in facts, and impressed by the true spirit of philosophy and poetry. We cite a few passages in proof. The author takes, as an example of chemical action, or metamorphosis, a mineral spring, issuing from the crevices of the inner and heated part of the earth, and pursues the mutations of one of its constituents.

"These bubbles of fixed air, or carbonic acid, are made up of charcoal and the vivifying part of our atmosphere, oxygen. This gas, coy, aerial in its form, yet has earthly longings, and loves to creep close to the bosom of the earth, and twines within the deepest folds and wrinkles which Time has made upon her surface; bathes itself in the placid stream, and with it floats along, until it is carried to the sea, where it descends from its exalted position, and seats itself upon the billows of heaving ocean, and mingling in the foam and the waves, it pierces several fathoms deep, to the ocean bottom. There, on the dark slopes of a subaqueous hill, lie in wait myriads of beings, little sacs of membrane, invisible to the unaided eye; they twist their tiny arms about, and catch a bubble, with its coating of water, and greedily devour it; the water they return, the bubble is retained; presently a little limestone coat or shell is formed by the animal, and half the amount in weight is caused by this imprisonment and solidification of the gas. These little animalcules work and build together, and by numbers illimitable and succession continuous, they raise their limestone to the water level,—and behold, the coral reef. Trace it emerge steadily above the water, and the yam and the bread-fruit, the cocoa-nut and the screw-pine clothe its flat and whitened beaches with food and shelter for the wayfaring navigator or current-drifted Polyne-

sian. Here is the restless activity of the atom. Vomited forth from the earth, it emerges into air—sinks down into the water—passes into the body of an animal, and becomes an integrant part thereof; and when the latter dies, it remains behind to form the basis of a durable rock. It is the real proteus; with its change of place it has changed its form;—in the air a gas, in the water a liquid, in the animal and the reef it is imprisoned as a solid. Nor is this a new office to it. Ever since that period in our planet's history, when the waters were gathered together into one place, has this carbonic acid fulfilled the same office, and built up, in the slimy depths of the ocean, these numerous mountain masses of limestone, which, by the movements of time and elevation, become the dry rock of the valleys around us. The labors of man fall into insignificance when compared with that of a minute animalcule, and less enduring monuments of his existence remain, than that of one of the smallest of God's creation.

"But some one will now say, your atom is now at rest. It is a solid rock, and has been so for ages. But are rocks eternal? Why does Nature's bosom throb and heave within continually, and seem almost ready to burst, until, as it were, no longer able to confine herself within the tight girdle that encircles her, she bursts the zone and raises up the land around us. What for? Because the limestone will not stay among us. It, too, has its office;—it yields itself to the rains of heaven, to the rivers of earth, and to the demands of growing vegetables, and the plant and tree draw it in for nutriment, and destroy its composition. The river yields it to the animals in drink, and the remainder is carried down and deposited as a fine chalk mud at the embouchure of the stream,—again, in the cycle of change, to be raised to dry land, and again to be removed. Where, then, is the period of rest? Shall we call the quiescence of even a series of ages in the life of an indestructible and an immortal, a permanent condition? It is rather delay than rest. We must not measure the periods of creation upon the Procrustes bed of our short lives; nor dare to imagine the duration of even the life of our species as more than a dot of sand in the hour-glass of eternity."

Again:—

"While nature thus performs her round of change in the great deeps, let me direct your attention to what is going on in the air. See yonder forest trees, with leaves glittering in the sunbeams, like the well polished armor of the serried ranks of infantry, busy drinking in illimitable volumes of this same fixed air, carrying it into its branches and meeting with the water sucked up by the roots, forming, by the union of this gas and water, the woody tissue, starch, and sugar. To accomplish it, the gas is decomposed, broken up into charcoal and oxygen; the oxygen is given off, the

charcoal retained, to unite with the water to form from these substances in different proportions the solid wood, the gummy ferina, and the saccharine sap. Wonderful fecundity of nature! which can fashion from the same elements three different substances, and has power in addition to transmute them, one into another, with the least possible expenditure of force, as often as occasion demands the change.*

The following are among the closing thoughts of the address:—

"This ever-acting mutation of the atom is due in part to our air, which, containing so much oxygen loosely mingled in, readily yields that element to the first petitioner which presents itself, and it, like a Circassian beauty in the market, seems waiting for the offer, and anxious for the union. The brightest plate of metal is soon tarnished by it, and where it cannot corrode, it will film. It is the trouble of the daguerreotypist to keep his plate clean; he washes, he rubs, he dissolves, and he coats anew the surface occasionally, to keep a pure metallic surface; and when gotten, he has to shut it up from the light, for strange to tell, every ray of light lays its image there, unseen by our coarser gaze, but then needing only the more sensitive surface to make it plain to us.

"The slightest article which we leave out of our hands leaves its image where it rests. A copper coin upon a silver one—a silver coin upon a mirror, leave images which even our breath can make evident to our eye; and it is possible for us to take upon a warm copper ptate an image or copy of a newspaper.

"Nature does not merely condescend to paint the portrait or the landscape upon the coated plate in the atelier of the artist. She is no niggard in her pencil. Every where and at all times where there are rays of light wandering,—where there is a movement to be chronicled,—where there is, to speak technically, a ground to receive the painting, there the image is drawn, painted in an invisible ink. Wherever in crowds we gather within a building, wherever individuals may transact private business together, there is the angel of light tracing on the walls the images of the acts going on, whether they be good, or whether they be evil;—images invisible, ineffaceable; and, like as the manuscript of the middle ages, contain many works copied in one over the other,—those underneath not effaced, but only covered over, so as suitably to receive the more modern thoughts; so like leaves in a book, on these walls are there depicted the successive acts of individuals.

"With this power of the sun to record passing events, may we not understand, in a holier sense, the office of this luminary, who was set for us, "to rule the day;" and how awfully does the suggestion flit through our minds, that against every one of us there

* Dumas Org. Bal.

is a *handwriting of God recorded upon the wall*, which it needs little more than the learning of Egypt to expound and explore."

We thank PROF. ANTISELL for the pleasure we have enjoyed in the perusal of his tasteful and elegant address. Such lectures are worthy of all praise, and the young men to whom Dr. ANTISELL addressed this have shown that they are capable of appreciating true literary excellence in causing it to be published.

Editorial Department.

AMERICAN MEDICAL ASSOCIATION.

THE AMERICAN MEDICAL ASSOCIATION met at St. Louis on the first Tuesday in this month, and after transacting the usual business, adjourned to meet, next year, in Philadelphia. We have not yet seen a full account of the proceedings, but learn from members who were present, that the most exciting question at the late meeting was the motion to transfer, from Philadelphia to New York, the printing of the Association's Transactions. The motion prevailed, but it was at the same time resolved that after the present year the transactions shall be printed at the place of meeting, and consequently they will be printed in Philadelphia in 1855. Dr. C. A. POPE, of St. Louis, was elected President of the Association. The entertainment provided for the Association by the Physicians of St. Louis is described as having been sumptuous in the extreme, and the private hospitality to the members equal to anything yet exhibited in any city where the Association has met. We hope in our next number to be able to give all the particulars of this interesting meeting.

CHOLERA.

According to the last accounts from Paris cholera was on the increase in that city, the cases being more fatal as well as more numerous.

In New Albany, a number of cases of cholera appeared towards the latter end of April, but for several weeks past we have heard nothing of the disease. A physician of that city informed us that it first broke out in the same houses in which it first made its appearance, in 1849, and just about the same season; and it is worthy of note that these houses are built in the immediate neighborhood of a filthy pond, one or two of them directly over it. The cases are said to have been twelve or thirteen, and we were told by our informant that all but one or two terminated fatally. Some of the friends of the families afflicted, who remained with the sick as nurses during the night, are reported to have suffered with the disease subsequently, but it did not spread or become epidemic.

INSANE ASYLUMS.

Insanity and the provision for the unhappy beings who are afflicted with disease of the mind, are subjects which have derived fresh interest from events just transpiring in Congress. A bill, it is known, recently passed both Houses of our National Legislature ceding to the States a large amount of the public lands, for the benefit of the indigent insane, and it is also now known that the President has vetoed that bill. It is a matter of the most sincere regret, we would say, of the deepest grief, that the President has felt constrained to defeat so beneficent a measure. Most of the States, it is true, have erected Asylums for the Insane, but in none is the provision equal to the wants of the population. Amply as some have prepared for such sufferers, there is not a State in the Union which has all the accommodations necessary for its insane, and in most of the States the provision is lamentably inadequate. There are still many lunatics confined in the common jails because there is not room for them in the Lunatic Asy-

lums. In view of these facts the regret, we think, must be general, that the humane law passed by Congress was not permitted to go into operation.

Lunatic Asylums having in view the restoration of the insane are institutions of a modern date. As early as 1553 there was one in England, where the crazy were kept, not with a thought of their cure, but for the security of the public. PINEL first conceived the benevolent idea of restoring them to reason, and since his day they have been treated as the subjects of bodily disease, and with what success is well known to every one. Nothing in the history of modern medicine is more honorable to it than the signal improvement in the management of mental alienation. Multitudes of insane men are every year restored to the use of their faculties, to their families, and to the world. It is done through the agency of these institutions, for no fact is now considered better established than that it is necessary to remove deranged persons from their families, and bring them under the restraints and the curative influences of a Lunatic Asylum.

We subjoin an extract from the *New York Times* which contains some excellent thoughts on this subject forcibly expressed:—

"The insane behave better when together,—when kept under established rules to which they readily submit, since they are not arbitrarily imposed upon single individuals,—where they may be occupied in work or sports as is deemed best,—where schools, reunions, music may employ some hours, and seclusion afford perfect quiet at appointed intervals. In PINEL's day it was estimated that of every hundred of the insane, from twenty to thirty were violent; now, not over five or six are so in a hundred. Before Asylums were common, the insane were shut up in private chambers from the beginning to the end of the year, immured in poorhouses, or chained in prisons. Their shrieks, sounding through the quiet of a rural village, chilled the blood of cheerful youth, and frightened into gloomy melancholy all that heard them. Infectious cells, dungeons unfit for the condemned, were their dreary life-graves, till exhausted nature left them tamer and fitter for the company of drivelling idiots, in disgusting almshouses. Now, provision is made for their care—and if the malady is not of too long-standing, for their cure. Yet, no State in the Union provides enough for all her insane, nor does any one provide, perfectly, for those it has in charge. To deal with them as they should be dealt with, is an exceedingly delicate matter. Attendants must be firm and unyielding, yet gentle and winning. Medical assistants must

be shrewd—gifted in reading human nature—the choice ones of their profession. Asylums should avoid all that seems prison-like in architecture or furnishing. Rooms for restraint should be strong, without seeming so; the bolts should be out of sight, and the locks sure, without pretension. The parlors should be hung with pictures suggestive of quiet and domesticity. Apartments to confine the noisy, while not far removed from the centre, yet should be constructed with thick walls, to deaden the sound that none need be shocked by their noise, nor the sleepers disturbed. None but those who know the insane, their wants, their dangers, their difficulties, should be intrusted with the plans for building asylums. In these respects, much yet remains to be done. The failure of the favorite project of Miss Dix must not lessen the hopes of philanthropists, or slacken their efforts. May a different effect be the issue, and greater interest than ever be felt in all that concerns the welfare of those in whom reason is overthrown.

HOMŒOPATHY.

Prof. Henderson, of the University of Edinburgh, is out in reply to his colleague, Prof. Simpson, whose work on Homœopathy we noticed a short time since. The reply is entitled "*Homœopathy fairly represented*," and has been republished by Messrs. Lindsay & Blakiston in a very handsome style. While we admit that the Professor of General Pathology in the University of Edinburgh is quite as able to do justice to Homœopathy as the ablest of its advocates, we must be permitted to say that his "reply" is very little to our taste; and we say this, not, we think, from prejudice against the subject, but because the temper in which it is written is bad, the argument feeble and unfair, and the style verbose and tedious. As to discovering anything new in support of this strange delusion, that was hardly to have been expected even from the learned Edinburgh professor, and we are therefore not disappointed in finding that the main fact insisted upon in his book as favoring homæopathy, is the fact so often urged—the frequent recovery of patients under this system of treatment. This is granted, as we know just as well that patients often recover from disease without any treatment at all; but that Dr. Henderson should contend gravely and laboriously for the efficacy of medicine in infinitesimal doses, we confess surprises us.

And yet we do not know that there is cause for being surprised at *any* vagary of the human mind. Dr. HENDERSON is a physician of learning and note, highly educated and of mature years; but physicians before him, with all his accomplishments and advantages, have been believers in clairvoyance and metallic tractors. It is sad to see such a man so led astray, but we see men, in our times, full of learning and years, becoming dupes to the monstrous absurdities of spiritualism. We may deplore the spectacles, but such things seem to be inseparable from human nature.

Dr. HENDERSON has the usual platitudes about the repugnance of the mind to new truths, the opposition to great discoveries, &c., which are in the mouths of neurologists, mesmerists, and all that class of pretenders. Every humbug offered to the acceptance of men is placed, by its fond author, in the same category with the Copernican system, and HARVEY's discovery of the circulation of the blood. It must expect its obloquy and buffetings. Truly the opposition to homœopathy continues a great while, and is far from being on the decline for all that we can see.

We must let Dr. HENDERSON speak for himself in one paragraph. It contains an apology for HAHNEMANN—a precious admission that he was not perfect and did not understand everything, and affords a fair specimen of the style and spirit of his work.

"We cease to wonder, then, that even HAHNEMANN, with all his genius and learning, and keen-eyed scientific instinct, *overlooked a few things* in medical science, which he might have studied with advantage to his reputation, and the credit of his system. In the brightness of his own discoveries, these inferior objects "hide their diminished heads," and the eye that dwelt so long and so intently on the light that appeared amidst the general gloom, from its first faint glimmering in its path, as he meditated mournfully on the surrounding chaos where "darkness brooked," on through its gradual kindling into the dawn of a better day to the patient humanity, may well be pardoned its insensibility to the ineffectual glowworm lights that could do little else in his day than make the darkness visible. This plea is specially applicable to his contempt for morbid anatomy, and to his ignoring of ordinary palliations that are capable of producing temporary ease in incurable organic diseases. With him the office of the physician was to *cure;* on that grand consummation his heart was set, and he had no eyes for any end short of the test that could be wished for. Morbid anatomy presupposes death; and whatever light the scalpel shed on disease, to HAHNEMANN it showed only the discomfiture, the

imperfection, sometimes even the deadly error of the art that should have healed. He sought only for the means of *curing* diseases, and believed that means existed which, known and rightly used, were equal, by the goodness of the Almighty, ('compared to which,' he says, 'the tenderest mother's love is as thick clouds beside the glory of the noon-day sun,') to the cure of almost all maladies: so that morbid anatomy was in his opinion merely the proof, if not the result of error."

One extract must suffice, and with it we dismiss the book. It will no doubt be a great comfort to the fraternity of homœopathists, but our impression is that few physicians who have other employment will have the patience to wade through its wearisome pages. We venture the prediction that it will not make one convert to Homœopathy.

SMALL-POX.

There have been two or three fatal cases of small-pox, in this city, within the last few weeks, and the disease is still prevailing to some extent in one or two neighborhoods. Small-pox was prevalent during the last year in several of the eastern cities, and from New York we have a pamphlet by Dr. Joseph C. Hutchinson on the causes of its prevalence there, in which we find the remark, that an inspection of statistical tables "reveals the significant fact that in those countries where vaccination is made compulsory, the proportionate mortality from small-pox is considerably less than half what it is where it is entirely voluntary."

This is a significant fact. If vaccination were universal, we have no doubt that small-pox would be extirpated. In Denmark it had at one time disappeared before the defensive influence of compelled vaccination; but chance and a careless security, says Dr. Watson, have led to its re-introduction there.

There is a disposition in the public mind to question the efficacy of vaccination, which the recurrence of the pest, and especially in vaccinated persons, is calculated to increase. But it should be borne in mind that the operation is often very carelessly and imperfectly performed, from which it must result that the system is not brought under the vaccine influence; and it is further to be

remembered that individuals are liable to second attacks of small-pox, and may therefore occasionally suffer with varioloid after having been well vaccinated. But there is no ground for skepticism as to the prophylactic powers of the vaccine virus; on the contrary we are sure that every one who patiently investigates the subject will be ready to adopt the language of Dr. HUTCHINSON, who declares in closing his laborious inquiry, that his "estimate of the immense value of vaccination is not only undiminished, but is positively increased, and that he feels more inclined to defend from the assaults of ignorance and prejudice the most brilliant triumph of modern medicine."

MEDICAL ASSOCIATION OF TEXAS.

We have before us a pamphlet containing the "Constitution and By-laws of the Medical Association of Texas," which was instituted in January 1853, and incorporated by the last Legislature of the State. The pamphlet also contains the proceedings of the last annual meeting, together with the anniversary address of the President, Dr. GEO. CUPPLES. Texas possesses the elements of a great State, and the proceedings of its Medical Society show that it is the determination of its physicians to advance the medical profession with the growth and development of the State. These proceedings would be creditable to the profession of any of the older members of the confederacy. The address of the President is forcible and eloquent.

Record of Medical Science.

LEGAL DECISION, MALPRACTICE.—We copy the following important decision in a case of alleged *malpractice*, from the *Medical Reporter:*

The following opinions, delivered by Judges Woodward, Black, and Lewis, in reference to the subject of skill in a Physician or Surgeon, in attending a patient, to free him from the charge of malpractice, should he fail to effect a cure, will be read with interest. They are of more than ordinary importance, and it will be seen, overturns the law of the Court below.

Dr. Alexander G. McCandless *vs.* James McWha.—Error to Common Pleas of Beaver county.—Woodward, J.—This was an action on the case by the defendant in error, a respectable physician and surgeon, for malpractice in setting a broken leg of the plaintiff, and the only question of any importance, presented for our consideration, is whether the Court erred in charging "that the defendant was bound to bring to his aid the skill necessary for a surgeon, to set the leg so as to make it straight, and of equal length of the other when healed; and if he did not, he was accountable for damages, just as a stone mason of brick layer would be, in building a wall of poor materials and the wall fell down; or if they built a chimney, and it should smoke by reason of a want of skill in its construction."

It is impossible to sustain this proposition. It is not true in the abstract, and if it were, it was inapplicable to the circumstances of the case under investigation. The implied contract of a physician or surgeon is not to cure—to restore a fractured limb to its natural perfectness—but to treat the case with diligence and skill. The fracture may be so complicated that no skill vouchsafed to man, can restore original straightness and length, or the patient may, by wilful disregard of the surgeon's directions, impair the effect of the best conceived measures. He deals not with insensate matter, like the stone mason or brick layer, who can choose their materials and adjust them according to mathematical lines,

but he has a suffering human being to treat, a nervous system to tranquilize, and a *will* to regulate and control. The evidence before us marks this strong distinction between surgery and masonry, and shows how the Judge's inapt illustration was calculated to lead away the jury from the true point of the cause.

Dr. Duncan describes the fracture as an oblique comminuted one, of the *tibia* and *fibula* of the leg, about half way between the ancle and the knee, and he says that on one occasion, when he was present at a dressing of the limb, he heard Dr. McCandless complain that McWha had loosened the bandages, and he told him that if he loosened them, his leg might be shortened, but McWha justified his act because his leg was painful. Now upon such a state of facts, the question was, not whether the Doctor had brought to the case skill enough to make the leg as straight and long as the other, but whether he had employed such reasonable skill and diligence as are ordinarily exercised in his profession. For less than this he is responsible in damages, but if he be held to the measure laid down by the Court below, the implied contract amounts, on his part, to a *warranty of cure*, for which there is no authority in law. In a fracture like this, a shortening of the limb is sometimes an inevitable consequence. Dr. Dorsey, in his Elements of Surgery, speaking of broken legs below the knee, says:—"The fracture of both bones is most frequent—it may be transverse or oblique, simple or compound, comminuted or single. The fragments are occasionally displaced in every direction. In transverse fractures there is generally no shortening of the limb, but in those which are oblique, the leg is generally shortened." And from Ferguson's System of Practical Surgery, cited in the argument, we learn that the fracture in the tibia may be oblique, and the fragments, two or more, may have a constant tendency to become displaced—there may be great irritability of the muscles, particularly during the early part of the treatment—great restlessness of the patient, or unwillingness to submit to the requisite confinement; in short, a vast variety of circumstances likely to cause difficulty in the treatment. Not to multiply authorities, these are sufficient to show that the rule prescribed by the Court is too rigid for this class of cases—that shortening of the leg may result from the most careful and approved practice, or from the misconduct of the patient. Nothing can be more clear than that it is the duty of the patient to co-operate with his professional advisers, and to conform to the necessary prescriptions; but if he will not, or under the pressure of pain cannot, his neglect is his own wrong or misfortune, for which he has no right to hold his surgeon responsible. No man may take advantage of his own wrong, or charge his misfortunes to the account of another.

We do not mean to intimate an opinion that this case was properly treated, or that the leg could not have been restored to the

length of its fellow; but in view of the diversified circumstances that attend cases of this sort, it was very important that the true rule of professional responsibility should have been given to the jury, with instructions that they should inquire, from all the facts in proof, whether the defendant had come up to it, or stopped short of it.

We have stated the rule to be reasonable skill and diligence, by which we mean such as thoroughly educated surgeons ordinarily employ. If more than this is expected, it must be expressly stipulated for, but this much every patient has a right to demand in virtue of the implied contract which results from entrusting his case to a person holding himself out to the world as qualified to practice this important profession. If a patient applies to a man of *different occupation* or employment, for his assistance who either does not exert his skill, or administers improper remedies to the best of his ability, such person is not liable in damages; but if he applies to a *Surgeon*, and he treats him improperly, he is liable to an action, even though he undertook gratis to attend the patient, because his situation implies skill in surgery. Per. Heath J., in Shiels v. Blackburn, 1 Hen. Blac.; 161 Seare v. Prentice, 8 East., 348.

The principle is contained in the pithy saying of Fitzherbert, that it is the duty of every artificer to exercise his art rightly and truly, as he ought. This is peculiarly the duty of professional practitioners, to whom the highest interests of man are often necessarily entrusted. The law has no allowance for quackery. It demands *qualification* in the profession practiced—not extraordinary skill, such as belongs only to a few men of rare genius and endowments, but that degree which ordinarily characterizes the profession. And in judging of this degree of skill, in a given case, regard is to be had to the advanced state of the profession at the time. Discoveries in the natural sciences for the last half century, have exerted a sensible influence on all of the learned professions, but especially on that of medicine, whose circle of truths has been relatively much enlarged. And, beside, there has been a positive progress in that profession, resulting from the studies, the experiments, and the diversified practices of its professors. The patient is entitled to the benefit of these increased lights. The physician or surgeon who assumes to exercise the healing art, is bound to be up to the improvements of the day. The standard of ordinary skill is on the advance, and he who would not be found wanting, must apply himself with all diligence to the most accredited sources of knowledge.

If, in view of the principles here stated, Dr. McCandless shall be found, on re-trial, to have performed his whole duty to his patient, and that any defects in the limb are due to the patient's fault, or to the peculiarities of the fracture there ought to be no

recovery in damages. But if the blemish be fairly attributable to professional negligence, the jury should assess the damages.

The only remaining error assigned is scarcely worthy of notice. The action depended so entirely on its own circumstances that the observation of the Court as to the policy of such suits was irrelevant, and we may fairly presume harmless. But for misdirection on the other point the judgment is reversed, and a *venire de novo awarded.*

McCandless *vs.* McWha.—Black.—We all concur in the law of this case. The Judge, in his charge, fell into an error in stating the amount of skill required in the treatment of this case. We reverse for that reason. But when we decide the legal point we are done with it. We are not authority on questions of surgery. Our hands are abundantly full of questions which belong to our own profession, without volunteering opinions on sciences which relate to others. I think it necessary to say this in order to prevent the Court below, on second trial, from supposing that we intend to give them any instructions on matters in which we have no jurisdiction.

McCandless *vs.* McWha.—Lewis J.—Without dissenting from the able opinion of Mr. Justice Woodward, I make the following additional remarks: The case is peculiar, and relates to matters of such general interest as to justify this course. The Court below charged the jury that "the defendant was bound to bring to his aid the skill necessary for a surgeon to set the leg so as to make it straight and of equal length with the other when healed; and if he did not he was accountable in damages, just as a stone mason or bricklayer would be in building a wall of poor materials and the wall fell down; or if they built a chimney, and it would smoke by reason of a want of skill in its construction." This is the error complained of, and it seems to be thought that the Court, in giving this instruction, held the surgeon bound, under all circumstances, to cure the fractured leg so as to "make it straight and of equal length with the other when healed." I do not so understand the language of the Judge. He only held the surgeon bound to "*bring to his aid*" the skill necessary for the purpose. If the fracture in question was one which might have been restored by the exercise of ordinary skill, there was no error in requiring its exercise from one who held himself out as possessing it, and received compensation for his services in consequence of his represented professional ability. This brings us to the question: Was the injury one which might have been cured by the exercise of ordinary surgical skill? To decide this question we must have a description of the fracture. The evidence given has not been brought up by the bill of exceptions, and the defendant in error objects to that part of it which has been inserted in the paper-book without being certified as correct. The only testimony presented

for consideration here, by the plaintiff in error, is the deposition of Dr. Duncan, who was his student at the time of the injury, and visited the patient in company with his preceptor after the first visit of the latter. This witness describes the injury to be "an oblique comminuted fracture of the *tibia* and *fibula*, nearly half way from the ancle to the knee, or thereabouts;" and informs us, in speaking of the treatment of it by Dr. McCandless, that "there were splints on the fore and back parts of the leg, reaching from the ankle to the knee, to keep up extension and counter-extension." Dr. McCandless, on this visit, complained that the patient had "disturbed the bandages and dressing *by loosening them;*" and the patient "defended the act *of loosening the bandages*, because the leg was painful." The witness further states that the leg, at this time, was "considerably swollen."

We have no precise account of the manner in which the splints were secured, so as to "keep up the extension and counter-extension," for which the witness tells us they were designed. I am unable to comprehend how splints "reaching only from the knee to the ankle," could be applied to such a purpose without manifest danger of injury by means of the attachments which would be necessary to produce the result. *Extension*, as used among surgeons, is the force exerted on the lower fragment, in order to bring its superior extremity lower than the inferior extremity of the superior fractured portion; and *counter-extension* is a resisting force which prevents the whole limb, or even the body, from obeying the force of extension. The attachment, by means of a circular bandage at the ankle, for the purpose of extension, and that at the knee, for the purpose of counter-extension, would tend to impede the circulation, particularly the venous return, (which ought not to be obstructed,) and would irritate the parts so as to produce great pain and probable injury. Professor Boyer, in his Lectures on Diseases of the Bones, recommends that the splints should be long enough to extend from the knee to *a short distance beyond the sole of the foot*, and that they should rest perpendicularly on their edges, and a third splint on the anterior portion of the leg. Professor Miller, in his Principles of Surgery, states that the splints should "*invariably* be of sufficient length to *command the neighboring joints*, otherwise, by rotation, re-displacement will certainly take place." Dr. Hutchinson recommends splints extending from the knee *six or eight inches below the sole of the foot*, so as to dispense with irritating attachments at the ankle. But Professor Dorsey, whose skill and experience entitles his opinion to great respect, in his work on Surgery, informs us that even Hutchinson's convenient method is found to produce great irritation, and to cause the leg to swell from the pressure of the circular bandages; and that when this happens, in oblique fractures of the leg, (such as the case in question,) *the long splint of*

Desault must be substituted, and the *counter-extension made at the pelvis*, in the same manner as in the case of a fractured thigh except that the leg must be dressed with the bandage of strips." In fractures of the thigh, permanent extension is usually effected by means of a long splint, acted on by a band attached to its upper extremity, and passed over the perineum, by the tightening of which the splint and the limb are pushed steadily downwards. By the addition of a shorter splint, but long enough nevertheless to extend from the perineum to six or eight inches beyond the sole of the foot, united at the lower extremity to the long splint by means of a cross piece, the extending force could be applied to the ankle by attachments to the cross-piece, in such a manner as to avoid irritation or other injury. But according to the opinion of eminent surgeons, "a short splint, extending a little above and below the fracture only, is not only an absurdity but a mischievous absurdity."—Miller's Prin. Surgery, 507.

Entertaining these views of the case, I am bound to say that the plaintiff in error has failed to satisfy me, either upon philosophical principles, or by surgical authority, that the means made use of, for the purpose of producing "extension and counter-extension," were adequate or even proper for the purpose. If this was a case in which such extension by artificial means was not required, the mere want of adaptation of the means to that end would be immaterial. But we must remember that the fracture was oblique, not transverse—that it was comminuted—that is, the bones were broken not only at one point, but many—and that both the *tibia* and *fibula* were thus fractured. Under these circumstances, in preventing the shortening of the limb by the contraction of the muscles, no reliance could be placed upon the bones thus broken into fragments. The necessity of supplying the place of these natural splints, by artificial means, must therefore have been manifest to a surgeon of ordinary skill in his profession. But in addition to the application of means not sufficient to produce the result which was indispensable to a proper restoration of the leg, there is reason to believe, judging solely from the imperfect view of the evidence presented by the plaintiff in error himself, that the short splints were applied by attachments above and below the fracture, so as to impede the circulation, to irritate the parts, to cause the limb to be "considerably swollen," and to produce so much pain that the patient, notwithstanding the strong motive which he had to submit to any treatment likely to effect a perfect recovery, "loosened the bandages because the leg was painful." If this was the case, whatever may be thought of the propriety of the original application of these means of extension, their continuance and the neglect to adopt others less liable to objection, was *prima facia* evidence of a want of surgical skill, and if not explained to the satisfaction of the jury, the defendant below ought to answer in damages for the injury.

A patient is bound to submit to such treatment as his surgeon prescribes, provided the treatment be such as a surgeon of ordinary skill would adopt or sanction. But if it be painful, injurious and unskillful, he is not bound to peril his health, and perhaps his life, by submission to it. It follows, that before the surgeon can shift the responsibility from himself to the patient, on the ground that the latter did not submit to the course recommended, it must be shown that the prescriptions were proper, and adapted to the end in view. It is incumbent on the surgeon to satisfy the jury on this point, and, in doing so, he has the right to call to his aid the science and experience of his professional brethren. It will not do to cover his own want of skill by raising a mist out of the refractory disposition of the patient.

The intemperate habits of the patient are also relied upon here. But this furnishes no excuse for the want of skill in the surgeon. On the contrary, it was a circumstance calculated to admonish him that the case called for more skill and care than cases of less difficulty demand. We are, therefore, brought back to the main questions in the cause.

1. Did the surgeon exercise ordinary skill and care in his treatment of the patient? If he did, he is not liable. If he did not, he is.

2. Was the injury one, which, under all the circumstances, might have been perfectly cured by ordinary surgical skill and care? If it was, and the surgeon failed in his duty in this respect, the damages ought, at least, to be commensurate with the injury. If the injured leg was not susceptible of a more perfect restoration, the surgeon would nevertheless be liable for any unnecessary pain or delay occasioned by the application of unskillful and improper remedies.

Although the error assigned may not be fully sustained, we have nevertheless a right, in our discretion, to reverse for an error not assigned, if it is believed to involve an important principle, or to affect the justice of the case.

In the charge the Court told the jury in substance, that the surgeon was bound to bring to his aid the skill necessary to effect a perfect restoration of the leg. The propriety of this instruction depended upon the question whether the injury was one which under all circumstances, a surgeon of ordinary skill might have perfectly cured. This was a question of *fact*, which should have been submitted to the jury. Plain as the question may seem, it is not a matter of *law*, the decision of which can be taken from them and assumed by the Court. There was, therefore, error in giving the peremptory and unqualified direction which withdrew this part of the case from the jury. But there are errors of omission as well as those of commission. When the Judge spoke of the obligations of the surgeon to bring to his aid the necessary

skill, he ought to have enforced the co-relative duties of the patient to submit to all the skillful and proper requirements of his professional attendant. When the jury were told, in effect, that the defendant was liable if he failed to exercise the skill necessary to a perfect restoration of the leg, they ought also to have been informed that if he exercised ordinary skill and care, he is not responsible for the disastrous result which ensued. Where a case turns upon a question of fact, the jury should be advised of the conclusions of law which apply to each aspect of it. The object of investigations is to enable the jury to form an enlightened judgment on the whole case. The errors of commission and omission referred to, tended to give the jury a one-sided view of the controversy, and when considered in connexion with the facts that a *professional man* was on trial before a jury of laymen, and that the Court, instead of guarding him, as in duty bound, against the prejudices likely to arise in such cases, actually indulged in a strain of remark calculated to inflame them, it is our duty to correct all the errors within our reach. The remarks complained of in the second assignment of error, affirm no principle of *law*, and are therefore not the subject of review here further, than as they suggest the propriety of exercising a prudent discretion in regard to matters which are subject to review.

It is important to the interests of society, that the profession entrusted with the preservation of the health and lives of the community should be held to a strict rule of accountability. Men of true science will not object to this. They court investigation. But the incompetent practitioner and the designing empiric, "love darkness rather than light," and the sooner they are driven by judicial scrutiny, into other pursuits for which they are better qualified, and where they can do less mischief, the better for the public welfare. But it is equally important that professional services should be fairly treated, and that true skill and worth should receive the firm protection of the law. All men have a right to the instructions which make in their favor. But the exigency of the surgeon's case rendered them indispensable on the present occasion. The difficulties which seem to stand in his way are sufficient, without aggravating them by withholding the proper instructions in his favor.

For these reasons I am in favor of reversing the judgment and awarding a *venire de novo.*

Case of Croup.—Tracheotomy.—Successful Result.—By J. W. Minor, M. D., Surgeon of Brooklyn City Hospital.—C. A.; male, æt. 18 months, was attacked with croup, Tuesday, Dec. 20, 1853. Was promptly and efficiently treated by an intelligent parent, with the remedies usually resorted to, and generally successful in domestic practice. The next day (Wednesday) he appeared to be as well as usual, except a little hoarseness and occasional cough, which was scarcely heeded; though from the subsequent development of the disease, they must have been of such a character as would have excited alarm in an educated ear. As night approached, the hoarseness and cough increased rapidly, with all the well marked characteristics of this formidable disease. The remedies which had previously produced relief were again resorted to; but although they exercised their full specific actions, there was no abatement of the symptoms.

On Thursday evening, Dr. James Crane, of this city, was sent for, and found him laboring under all the well-marked symptoms of the disease, viz: dyspnœa, dry husky voice, and cough, &c. Ordered calomel and antimony every two hours. The antimony had the desired effect, producing free vomiting. About 3 o'clock, A. M., Dr. Crane was again summoned, but being engaged with anothed case, Dr. C. R. McClellan was called. He found all the symptoms much aggravated; ordered tincture of sanguinaria in addition to calomel and antimony, but without any visible effect. Was again seen by Dr. Crane about 9 o'clock, A. M., on Friday; at which time the symptoms were so much aggravated as to induce him to request a consultation with Dr. McClellan. The urgency of the case led to the opinion that further medical treatment would be of no avail, and that surgical interference would probably be required.

With this view I was summoned between 9 and 10 o'clock, A. M. On my arrival, the little sufferer was laboring for breath, with the mouth and nostrils dilated, and muscular apparatus of respiration in the most intense state of action; the face and neck suffused with carbonated blood; the breathing stridulous, and voice husky; in short, presenting all the most pressing indications for speedy surgical interference, or else a rapid termination in death.

This, together with a brief statement of the previous history of the case by Dr. Crane, induced me to fully concur with them in the opinion that tracheotomy alone could afford a chance for life; and I proceeded to operate with the least possible delay.

The operation was performed in the usual manner, and presented no features worthy of remark, except in the difficulty in cutting through the rings of the trachea, the delay produced by which, with the violent struggles of the child, had nearly caused asphyxia.

At one time we thought that the little patient must die, the

pulse being scarcely perceptible, and the respirations faint and few; but by keeping him in an upright position, with the shoulbers alternately elevated and depressed, and by the administration of brandy and ammonia, the respiration was gradually restored.

Previous to the introduction of the tube, the posterior surface of the trachea was observed to be of a yellowish white or buff color, and led me to believe that the inflammation had reached that point, though the subsequent course of the case would favor the opinion that it had been confined to the larynx.

The clearing up of the purple hue of the face and neck, as the fullness and frequency of the inspirations furnished the blood with oxygen, was most striking and satisfactory. A tube was introduced, and retained by tapes around the neck. I may here mention that the one which was first introduced gave us some trouble, from not having the rim sufficiently broad and long, in consequence of which it could not be kept steady; my own canula was subsequently introduced, which having ruch a rim, answered very well.

The calomel and Dover's powders, which had been previously ordered, were continued, and directions left to clear out the tube with a moistened feather from time to time, to prevent the hardened crust of mucus which accumulates and obstructs it under such circumstances.

Saw him again the same evening, and found no material change except some febrile reaction, but not more than might be expected. Respiration easy and comfortable, slight mucous râles in the bronchial tubes. The extreme fretfulness and irritability of the child prevented a very accurate examination. Continued powders.

Saturday, 24th. Child passed a tolerable night, pulse accelerated, cheeks flushed, and some heat of skin.

The mother informed me that about midnight there had been discharged through the wound, *above the tube*, a tough, tenacious "phlegm," after which the air seemed to pass entirely *per vias naturales*, the opening in the convexity of the tube allowing it to do so, illustrating the importance of such an arrangement, permitting the returning functions to be gradually and steadily resumed, as the obstruction is removed.

5, P. M. Still some febrile reaction, respiration perfectly easy, and a little accelerated, but not more than would be the case with the same vascular disturbance under other circumstances. Inasmuch as the larynx seemed fully competent to perform its functions, and the trachea seemed almost free from disease, I removed the tube, as it was no longer needed, and would merely act as a foreign body. Fearing, however, that if the wound were closed too soon, a subsequent return of obstruction (in larynx) might take place, it was kept moderately dilated.

Sunday 25th. The same powders were continued. Still some

vascular disturbance, but not more than necessary for the purpose of reparation. Wound perfectly open, permitting a clear view of the posterior lining of the trachea; but strange to say, scarcely any air escapes from it. Why is this? It is only in coughing that air in any volume escapes. Directed to continue powders.

Monday, 26th. Doing well, brought edges of wound together with adhesive straps, discontinued powders.

From this time the case progressed rapidly to a favorable termination, the wound closing in less than ten days from the time of the operation.—*New York Med. Times.*

MIDWIFERY.—*An account of seventeen cases of Parturition in which Chloroform was inhaled with pernicious effects.*—Dr. ROBERT LEE read before the Royal Medical and Chirurgical Society an account of seventeen cases of parturition in which chloroform was inhaled with pernicious effects. In the cases related, the injurious effects of the inhalation of chloroform were as follows:—In seven cases, insanity and great cerebral disturbance followed its exhibition. The use of the forceps was rendered necessary in five cases. In two, the contractions of the uterus were arrested, and the operation of craniotomy was performed. Peritonitis or phlebitis ensued in four cases. Epilepsy or dangersus fits of syncope supervened in two instances. Many analogous cases had been confided to the author by friends; and public rumor swelled the size of the chapter of accidents; but he wished merely to give accounts of those which had come under his own observation. The author strongly animadverted upon the levity and thoughtlessness which had accompanied the use of this subtle and dangerous poison. Soon after its discovery, before the amount of its power, and even its composition, had been fully understood, he had been horrified by the announcement of its application to midwifery, and he then prophesied that deplorable results would ensue—a prognostication which experience had unhappily proved to be correct. It was natural that women, doomed to bring forth their young in pain and sorrow, should seek every means by which they might palliate the anguish they suffer; and instances related in which the process of parturition had been effected without pain, served to render nugatory the unwelcome admonitions of those who pointed to the evils that might occur. The author expressed his opinion, that the most serious effects which arose from the inhalation of this agent, were, first, languid and inefficient uterine contractions; secondly, a greater susceptibility to the risks that arose from inflammation and fever. In spite of the fact that grave and experienced physicians had expressed their concurrence with the author's views, yet the question, whether chloro-

form should be inhaled had become almost extra-professional; as silly and ignorant women of fashion chose to set the example of using it, the cause of science and humanity thus being in the hands of the most weak and frivolous portion of the community; and, as there was a systematic concealment of the truth by the physicians who used it, he feared that young and inexperienced mothers would still be lured to their destruction. In conclusion, the author expressed a hope that his essay might tend to rescue the profession from the dominion of an ignominious and disgraceful practice.

Dr. Snow regretted that Dr. Lee had indulged in such severe remarks as those which occupied the concluding portion of his paper, more particularly as he felt great admiration for the talent displayed in the essay, and great respect for the honest and manly spirit that caused the author to attack anything which he considsidered injurious either to a patient under treatment, or to the cause of science generally. Dr. Lee certainly had related the history of several distressing cases; but, in his (Dr. Snow's) opinion, not one of the symptoms described could be referable to the exhibition of chloroform. Dr. Lee must have known that chloroform was a most volatile spirit, and that half an hour after its application no traces of it could be found in the system; and yet, in some of the cases related it was stated, that inflammatory action had arisen two or three, and even as much as fourteen days after labor. How could the evil effects described be laid, with any show of probability, to the noxious influence of chloroform? Some of the symptoms mentioned in the cases might be naturally referred to hysteria. Dr. Lee had stated, that the chloroform checked the uterine contractions; this statement Dr. Snow could contradict, as, in the many cases in which he had superintended its employment, he had continually felt the uterus contracting firmly. The amount of the spirit inhaled in obstetric practice was trifling, compared with that taken during surgical operations. One great benefit derived from its application was, that it tended to do away with the use of laudanum; and Dr. Lee ought to hail this fact with joy, inasmuch as the time that the former drug remained in the system was so short in comparison with the latter. In conclusion, Dr. Snow expressed his opinion, that, notwithstanding the recorded cases of death having occurred from the use of chloroform, which now amounted altogether to about thirty-seven, it had been the means of saving many lives, by preventing nervous excitability consequent upon severe operations.

Dr. Gream, with great respect to the learning of the author of the paper, was of opinion that he had, in this, as in many other cases, preferred antiquated measures to modern discoveries, merely because the latter were modern; and had given a list of extreme cases. He entered into the question, as to whether uterine con-

traction was checked by the inhalation of chloroform; and stated, that when a large dose was given, it did so favorably when the patient was exhausted by a long and painful labor. He announced that he was only a recent convert to the practice of giving ether or chloroform in midwifery.

Dr. Merriman related a case where chloroform was administered during labor. Pain ceased, and he returned home for a short time. On being called again to see the patient, after a lapse of two hours, having been told that she was very ill, he was unable to find any trace of the child; and the systemic effect was so violent, that it was long before labor recommenced, the uterus having been temporarily paralyzed. She never recovered from the effects of the narcotic, and was finally removed to a lunatic asylum. This case had so alarmed him, that he had never since given his assent to the employment of chloroform.

Dr. Chowne said, the subject had been so talked about publicly, that it had become extra-professional. He expatiated lengthily upon the history of chloroform, remarking, that in his opinion, it had been received as a professional remedy without sufficient inquiry having been made into its properties. He instanced as an example, the first check given to its unconditional application, which was owing to a death which had occurred when the patient was undergoing the operation of having a tooth removed. Disease of the heart having been discovered in that case, a rule was laid down that chloroform should not be administered when an ailment of that organ was existing. Dr. Chowne gave some more instances in illustration of his opinion, and finally referred to Dr. Merriman's patient, whom he had seen; and stated, that the ergot of rye had been administered after the chloroform, without having any action on the uterus.

Mr. Carter said, that seventeen cases on which to found a decided opinion whether chloroform was beneficial or otherwise in midwifery, were not enough. He had frequently used it himself with no evil results, except in two cases, in one of which the patient was in a very asthenical condition. In the other case, death ensued while the woman was under operation. He reminded Dr. Lee that it was frequently used in country practice.

Mr. Ferguson stated that being engaged exclusively in surgical practice, he was unable to offer any opposition to Dr. Lee and his statements; yet he wished to know how it was, that these terrible results described, of insanity, phlebitis, and prolonged syncope, did not occur after the inhalation of chloroform during surgical operations. He considered that Dr. Chowne had not drawn a sufficient distinction between surgical and obstetrical practice, as regards the use of this narcotic. He could not understand how paralysis of the uterus could be caused by chloroform, when fæces and urine were often forcibly expelled when the patient was under

its influence, thus showing that it does not destroy involuntary muscular action. He expressed his opinion, that our experience in England of the good or evil effects of chloroform was far too limited for a decided opinion to be given on the subject; and referred Dr. Lee to the extensive use that is made of it with beneficial results in the United States.

Dr. Lee, in reply, stated that there was a vast difference between the birth of a child and the extraction of a tooth, or a stone from the bladder, or any other surgical operation; the latter being dependent upon external manual action, the former being a work of nature, dependent upon nervous influence. The child is expelled from the uterus by regular contractions, and the exhibition of chloroform stops this action, as he had seen and as he had heard from competent persons, who had attended cases where it had been administered. Moreover, he wished to know what was the dose of the drug that should be used. It was a pretence, merely to sprinkle a few drops of the liquid upon a handkerchief, and hold it over a patient's nose—a process which he designated as "chloroform à la Reine." And when the forceps were necessary, how could the medical attendant apply them with any safety when the woman was lying writhing about on the bed in convulsions following the use of this deleterious compound? No—woman was to bring forth her young in pain and with sorrow. This was a Divine ordinance, doubtless founded with a wise and merciful intention; and he considered that the continuance of the discreditable and cowardly practice of seeking relief from a necessary suffering, by resorting to such measures as he was combating, would be fraught with danger to her, not only physically, but also morally.

The Society adjourned at the usual hour.—*Medical Times and Gazette.*

THE WONDERFUL EFFECTS OF BELLADONNA IN THE THIRD STAGE OF PNEUMONIA.—On the 2nd October, 1852, towards noon, M. X., a monk at Berguac, twenty-five years of age, pale, dark complexion, of a lymphatic, sanguine temperament, of strong constitution, enjoying general good health, was imprudent enough, after inordinate exertions in the duties of his profession, to take, at a single draught, a large glass of iced water. During the night he was taken with a chill. I called at six o'clock on the evening of the 3rd to see him and found the following symptoms: anxiety, severe headach, eyes injected, white tongue, mouth open, intense thirst, nauseau, sleeplessness, urine scant with sediment, burning dry skin, full, frequent pulse, (115), dyspnœa, painful persistent cough, *tearing* expectoration of viscid mucous, mixed with air and red

blood, severe pain in the right lung, chiefly under the nipple, dullness over the interior two-thirds of the lung of that side, with loud pneumonic crepitation. In spite of very low diet, appropriate drinks, rest, four free bleedings from the arm, (all more or less cupped,) within the space of thirty-six hours from my first visit; in spite of several large doses of tartar-emetic and ipecacuanna, two leechings, one to the painful part, the other around the inside of the ancles; in spite of blisters on the breast, and on the legs, synopism, emollient clysters, etc., the disease continued to progress.

At 10 o'clock, on the evening of the 9th, the local and general symptoms had continued to increase in number and gravity, until it was obvious that red heptization of the lungs had taken place; face pale and anxious, extreme debility; lying all the time on the back; delirium—subsultus tendinum, vague expression, stupor, dry tongue, insatiable thirst for cold water, dry skin, eyes partly open, the eyeballs turned up, the pupils dilated, the cetina slightly sensible to strong light, passing urine involuntarily, pulse low, interrupted and diaphragmatic, respiration hard, cough scant and difficult expectoration, sputa thick and discolored, dullness increased and extended, respiratory murmur well over the seat of the disease, râles and other bronchial sounds, cold extremities, tendency to sinking towards the foot of the bed.

Under the above circumstances, with no reasonable hope of evading an unhappy termination by ordinary means, we prescribed 15 centigrammes of the augueous extract of Belladonna, mixed ten grammes of "sirop de cappillaire," taken at one time.

At the end of an hour and a half the effect of the belladonna was obvious, the patient slept tranquilly and quietly. In a few minutes his temperature augmented, face became animated, warm, vapory and abundant perspiration covered the body, the pulse rose, became stronger and less frequent, respiration was relieved, the symptoms all became more favorable. After two consecutive hours of repose, the patient awoke free from delirium, and feeling much better.

At 10 o'clock in the morning the pneumonia, which had to a certain degree re-assumed the characteristics of the first stage, was in a fair way to terminate by resolution.

Convalescence continued up to the 16th of November, when it was complete.—*De La Rue.—N. W. Med. & Surg. Jour.*

Large Doses of Pills for Children.—A child in this city, three years old, was left alone by its parents last week, for a short time, when it improved the opportunity of imitating their mode of medication, by resorting to the pill-box. It appears that a box of so-

called "Indian Vegetable Pills" had been left within its reach, and the child actually took *eleven* of them! But, strange to say, no harm followed this extraordinary large dose, save the fright it caused his distressed parents. It did *physic* the little one pretty thoroughly, and *we are told* that the child's health has been improved by the accidental circumstance!

Another similar case recently occurred under our observation. A child, who had a peculiar liking for pills, during the absence of its nurse went to the medicine chest and took from it a small vial containing *homœopathic* globules, said to be "the active properties of *dulcamara*," and of which it was considered that "*three* was a large dose for an adult." The little urchin actually ate two-thirds of them, say about *one hundred!* We were consulted by the parents immediately after the *accident* was made known to them; but on learning the facts we assured them they need have no fear of any bad results, as such infinitesimals could not possibly do the child an injury. Since then, we understand the parents have abandoned the use of such very "*dangerous medicines*," and now employ a regular practitioner.—*Boston Medical and Surgical Journal.*

USE OF EXTRACT OF BULLOCK'S BLOOD.—Dr. BEHREND thus writes: "Dr. Mauthner, to whom we are indebted for the introduction of this remedy, answers a request of mine as follows:—'I now give it to children in larger doses than before, to the extent of half an ounce in a day, dissolved in water. In many anæmic states the favorable result is so striking that the parents, perceiving the improvement of their child, generally desire a continuance of the agent. In these larger doses, it is true, the drug colors the dejections of a brown hue, but it does not give rise to the least dyspeptic symptom. It has never caused emesis, and if the child has shown some dislike to it at first, it takes it afterwards with great avidity. Children who were in the extreme stage of exhaustion, whose stomachs were so irritable that milk and beef-tea or broth were rejected by them, and cod-liver oil could not be in the least retained, bore the extract of ox-blood well, and throve admirably.' Here, in Berlin, [Mauthner is at Vienna,] the extractum bovini is given with very good effect to chlorotic and emaciated girls, and even to phthisical adults. A colleague has found it very efficacious in rachitis."—*Roger, in Jour. f. Kinderkhtn.*

The Western Journal

OF

MEDICINE AND SURGERY.

JUNE, 1854. NEW SERIES. VOL. I.—NO. 6.

FOREIGN CORRESPONDENCE.

BY AUSTIN FLINT, M. D., PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE UNIVERSITY OF LOUISVILLE.

PARIS, April 19, 1854.

DEAR DOCTOR:—

The Hospitals in Paris are the objects which first engage the attention of the medical stranger. I arrived in the city on Saturday evening, and on Monday morning I found my way to *Hôtel Dieu*. This, the most ancient, and one of the largest hospitals in Paris, first claims attention, and I propose in this letter to give you some account of it, premising that my observations have, as yet, been in a great measure confined to the medical wards, at present under the charge of Prof. TROUSSEAU.

Hôtel Dieu was founded in the seventh century. The chief entrance is in the *ile de la cité*, opposite the cathedral of *Notre-dame*. The ancient buildings, several in number, and extensive, are on this island. These are soon to be removed, and a new construction to take their place. A large building, of modern date, is on the opposite side of the southern branch of the river Seine, connected with the ancient portion by a covered bridge, and a tunnel beneath the quay intervening between the river and the building. The latter, situated in the *Enclos Saint Julien* embraces commodious and airy wards with one hundred and four beds. The total

number of beds which the hospital contains is eight hundred and ten. Surgical and medical cases are received at this hospital with the exception of children, incurables, insane persons and those affected with cutaneous or syphilitic diseases. For each of the classes of cases just enumerated there are special hospitals. Lying-in patients are only received in cases of emergency. This, together with all the hospitals of Paris, and everything pertaining to public assistance, is under the direction of a body, termed the *administration générale de l'assistance publique à Paris*, consisting of the Minister of the Interior, a Director, and a *Conseil de surveillance*, consisting of twenty members, over which preside the prefects of the Seine and of the police. The yearly average number of patients at *Hôtel Dieu* is twelve thousand, and the mortality one in eight.

The medical staff consists of Drs. LOUIS,* HEURTELOUPE, REQUIN, PIEDAGNEL, ROSTAN, GUERARD, BOUCHET, GRISOLLE, and TROUSSEAU, —Physicians; P. BOYER, JOBERT,—Surgeons. A vacancy in the Surgical department now exists, in consequence of the death of the eminent ROUX.† The duties are distributed among the different medical and surgical officers, so that an undue number of cases are not imposed upon any one. Thus, at the present time, only two wards, one for female, and the other male patients, are assigned to M. TROUSSEAU, the two containing about a hundred beds, and averaging from seventy to eighty inmates. The patients in the hospital are nursed by thirty-three *religieuses* and twelve novices of the order of St. Augustin. To each ward, also, are assigned several *internes* and *externes*, sub-medical officers, and a *pharmacien* or apothecary. The *irternes* and *externes* are appointed by *concours*, and receive a small salary. The medical officers on duty at this, as at other hospitals, are authorized to admit urgent cases; but the distribution of patients among the different hospitals in Paris is managed at the *Bureau central d'admission*, situated near *Hôtel Dieu*. For this duty there is a Board of twelve Physicians and six Surgeons who are on service in rotation.

As stated in my previous letter, M. TROUSSEAU commenced his

* LOUIS has lately resigned, and I know not who is his successor.

† The vacancy has been filled by the appointment of M. RICORD.

clinical course a few days after I arrived at Paris. From his writings and his reputation as an oral teacher, I was desirous of seeing his hospital practice, and hearing him lecture, and, as I have already said, my visits at *Hôtel Dieu* have been for the most part confined to his wards and to the amphitheatre at his lecture hour. M. TROUSSEAU was not long since appointed at *Hôtel Dieu* in the place of CHOMEL, who was compelled to retire in consequence of declining to take the oath of allegiance to the present ruling dynasty of France. I am informed that the acceptance by TROUSSEAU of the position under these circumstances has rendered him in some degree unpopular with the medical profession at Paris. As a clinical teacher in medicine, however, no one, at the present time, is so much esteemed by medical students, judged by the numbers who follow him through the wards, and assemble at his lectures.

In making his morning tour, through the two wards, commencing at a quarter before 8 o'clock, A. M., M. TROUSSEAU occupies an hour and a quarter. This allows him to remain but a few moments at the bed side of most of the patients; and the examination in no instance is much prolonged. No notes are referred to, save that he holds in his hand a sheet containing the prescriptions of medicine, diet, etc., heretofore made, and this is the only record of the history of the case which appears to be made. If daily records of the symptoms are noted, it must be done privately by the *internes*, and are not produced. The age, occupation and time of admission of each patient is affixed to the bed. A space is reserved for the title of the disease, but I have not observed this space filled out anywhere except at the Hospital St. Louis.

All the clinical Professors appear in the wards in hospital costume. This consists of an old overcoat, a white apron, and a close cap of cloth or velvet. M. TROUSSEAU's ward coat, coarse and much the worse for wear, resembles what with us is called a pea-jacket. The red *rosette* of the legion of honor, however, graces the collar. He appears in the amphitheatre and gives his lectures in the dress worn in the wards. The lectures, both clinical and didactic are always given sitting, and generally the lecturer has before him few or no notes.

At the opening of the clinical course by M. TROUSSEAU, about

a hundred physicians and students assembled in the wards while the examination of patients was going on. Very little was said at the bed side. The prescription for the day, the diet, &c., constituted the bed side instruction.

The amphitheatre on the first day was crowded. I should judge there were about two hundred persons present, the major part appearing to be medical students. At the subsequent lectures the attendance has been less, varying fron one hundred to one hundred and fifty persons. The utmost order, both here and elsewhere, in the lecture room is preserved. The students generally evince close attention, and many take notes. As regards a general aspect of intelligence and cultivation, however, the French students do not appear to me to be superior to medical classes in the United States. I have not noticed any impropriety of deportment anywhere, save that persons are in the habit of dropping in, and going out irregularly while the lectures are going on.

The lecturers here are not, so far as I have observed, often greeted at their entrance with much applause, and at the conclusion of the lecture demonstrations of approbation are slight, or altogether wanting. None are made during the progress of the lecture. In these particulars a marked difference exists between the customs here and with us. I am led to notice this the more because from the enthusiasm and vivacity for which the French people are distinguished, one would not naturally expect so much quiet in the lecture room.

M. TROUSSEAU appears to be about fifty years of age. He is tall, rather spare in figure, his black hair interspersed with a few that have become grey, is arranged so as to conceal, without close inspection some deficiency on the crown. His physiognomy denotes quickness and sharpness of intellect rather than a meditative, profound mind. The expression of his countenance is pleasing. His voice is agreeable and his intercourse with the patients and nurses is pleasant and kind. He is also affable in his relations to the *internes* and the students, at the same time always preserving a dignified demeanor.

As a lecturer he is admirable. His enunciation is remarkably distinct, so that he may be followed in his discourse by one imperfectly acquainted with the French tongue. He speaks with suffi-

cient deliberation, but with the utmost fluency, making not the least attempt either at rhetorical or oratorical display, entering into his subject with interest, and often manifesting considerable animation. In confining himself to a strictly didactic colloquial style, he follows the uniform custom with the public lecturers here, so far as I have yet observed. On this point, however, it is to be remarked that, if I may presume to say it, the French language is much less adapted to oratory and rhetorical power than our own. It does not admit of the rounded, ponderous sentences, and the *ore rotundo* which give to English composition and declamation a certain dignity and force added to the ideas which are conveyed. I may do the French tongue injustice, but it seems to me that if a French speaker is eloquent, it is rather in spite of his language, than from any aid which he derives therefrom. The language is suited, perhaps, better than the English, to nicety and sharpness in defining ideas, but if he wishes to be impressive he is obliged to call to his assistance gestures and even grimaces. The fact that so much action is habitually suited to the word in French conversation, as well as in public discourses, proves the correctness of the remark that I have made. Action is a necessary adjunct to the language, springing from its deficiency in intrinsic power. With us it is only a useful ally, often not essential, and very rarely admissible to the extent practiced in France. WEBSTER and CLAY, for example, needed no gesticulations to enchain the attention of their auditories, and overwhelm them with their eloquence. On the contrary, the effect of their simple but powerful diction would thereby have been impaired. Most of the lecturers that I have heard here, enunciate with a kind of musical intonation. During the pronunciation of a long sentence the voice is several times raised almost, or even quite to a *falsetto*, and finally drops to a low note at the conclusion of the sentence. But I am digressing in a way that I fear will be tedious.

You may be interested in some account of the substance of the lectures by M. TROUSSEAU. The subbject of peritonitis has occupied a portion of his remarks, several cases having been under observation lately, in his wards. A patient was admitted with evidences of a slight degree of inflammation, but a considerable quantity of liquid effusion within the peritoneal cavity, which had

taken place very rapidly. In the other cases the symptoms denoted more intense inflammation and the liquid effusion was small, the abdominal enlargement being due chiefly to meteorism. This point of difference led him to comment on the fact that quantity of effusion is no criterion of intensity of inflammation, but is determined by the *special* character of the inflammatory action.

In perionitis with effusion, he stated the risk from the operation of paracentesis to be much greater than in the case of other serous structures. In pleurisy, for example, the chest may be opened with greater impunity. In peritonitis it is very apt to be followed by exasperation of the disease and a fatal result.

For the treatment of peritonitis, he advocates calomel in fractional doses, viz., one grain taken in the course of the twenty-four hours, in ten or twelve doses, which will affect the gums in three or four days.

Opium and belladonna to relieve abdominal pains he deems highly important. On this point he dwelt at considerable length taking the view that the value of narcotics in painful inflammatory affections is not limited to their palliative effects. Pain, in itself, determines a fluxion to the painful part disposing to, and exasperating the state of inflammation. Thus in a person subject to gout, an attack may be determined by the pain incident to wearing a tight boot. Neuralgia seated in the supra-orbital nerve occasions an injection of the conjunctiva proportionate to the amount of pain. Let this pain be relieved by a local application of belladonna and opium, and the vascular injection ceases. The efficacy of opium in the treatment of peritonitis is no novelty on our side of the Atlantic. Indeed it is, I suspect, much better understood, with a portion of the American medical profession at least, than in Paris. I was surprised that M. TROUSSEAU did not mention as one of the important means by which its efficacy is exerted, arrest of the peristaltic intestinal movements.

He attached importance to local emollient and narcotic applications.

In a case of mild erysipelas seated on the face, he directed nothing but simple diet, and lemonade. This case furnishes a text for remarks on the tendency of certain inflammations to run a definite course, "*sans nous, malgré nous.*" Mild erysipelas of the

face, excepting it be accompanied by accidental complications, or developed by epidemic influences, is rarely a grave affection, and does not claim active interference. So, frequently, phlegmonous inflammations will often run on to suppuration in spite of any measures, and if the latter have been energetic, the patient is only enfeebled by them, without having received any benefit. Tonsillitis was cited as an illustration. Frequently this affection is treated by bleeding, general and local, purging, vomiting, etc., with a view of arresting its progress. The object almost uniformly fails, and then, instead of recovering rapidly from the disease, the patient requires additional time to recruit from the effects of the treatment.

In another lecture he called attention to the case of an infant who presented, on auscultation of the chest, a well marked tubular respiration. He arrived at the diagnosis of tuberculous disease in view of the fact that in children under a year old true pneumonitis is extremely rare, in cases presenting the symptoms of pulmonary inflammation the affection being capillary bronchitis. Rapid phthisis in young children he stated to be as frequent as it is rare in adults.

In a case of paraplegia suddenly developed in association with the phenomena of the first stage of variola, he attributed the paralysis to the tonic effect of the variolous poison. On an autopsical examination of a case of the same description, the brain and spinal marrow were found perfectly healthy. The *sudden* accession of the paraplegia is evidence that it does not depend on softening, or other organic lesions of the spinal cord. The variolous poison in such a case exerts a special action on the nerves which is analogous to the operation of strychnia, veratria, and other similar agents.*

I have given these few points, from memory, merely to serve, in some degree as specimens of the matter of the clinical lectures by Trousseau. I am not prepared nor could I spare sufficient time to undertake any thing like a full report of his lectures. Even if I had time, and sufficient familiarity with oral French to do this, a sufficient object is not to be found in the information

* The *Gazette des Hopitaux*, April 22, contains a brief report of several cases of paraplegia, incident to the development of small-pox. I send you a translation of the article.

which the lectures contain; for one conversant with current medical literature would not expect to derive from his oral instruction, thus reproduced, very much that is important and at the same time new; and although an able and highly interesting lecturer, I am by no means willing to admit that he is superior to several clinical teachers in our country.

The subject of small-pox, referred to just now, leads me to mention a fact which in my visits at different hospitals in Paris has struck me with surprise. At Hôtel Dieu, La Charité, St. Antoine, and Beaujon, I have noticed patients in the different stages of this disease intermingled with the other patients. No attempt at isolation is made. The effect of this is, that in the female ward under the charge of TROUSSEAU one of the patients just recovering from peritonitis is now attacked with varioloid. A patient with varioloid just being developed was received into a portion of the female ward devoted to children and their mothers. She remained there, no precautions being taken against infection, except to direct some young children who had never had vaccinia to be vaccinated. As a consequence, one of the children now has small-pox. It is truly remarkable that while such extensive, liberal hospital provisions exist, and so many institutions are devoted to special objects, a hospital exclusively for small-pox, and other contagious diseases, is not to be found in Paris.

Having, as you know, several years ago withdrawn permanently from the practice of surgery, my interest in that department is of course comparatively small, still I shall take pains to see the most distinguished of the Parisan surgeons. At *Hôtel Dieu* M. JOBERT (de Lambelle) is attached to the Surgical staff. I had often heard of him, and of his peculiar practice in uterine affections, and I was therefore desirous of witnessing his examination of patients and operations. I have devoted two mornings to this object. M. JOBERT is about fifty years of age; has dark hair and eyes, and his physiognomy is *distingué*. He is pompous in his carriage and mode of speaking, and *brusque* in his intercourse with his patients. One is led to notice these traits the more because they are in contrast with the manners of the other Surgeons here whom I have seen. In his ward visits on the two days when I was present, he examined the cases rapidly, and prescribed off hand,

with a certain air of positiveness which might lead one to imagine that he had in view a moral effect upon the spectators as well as patients.

One of the days which I selected for visiting his wards was what is well known here as his *burning* day. Two days in the week, (Monday and Friday) are distinguished by this appellation. On these days he *burns* the os uteri in more or less of his cases. We have heard, on our side of the Atlantic, cauterization with the nitrate of silver stigmatized as "womb-burning," but in the practice of M. Jobert this expression has a literal signification. He introduces into the vagina, through the speculum, an iron heated red hot, and brings it into contact with the mouth of the uterus. On the two days of the week just mentioned, after making his visit in the wards he received patients requiring examination with the speculum in a small room devoted to that purpose. In addition to the *internes* and *externes* about a dozen students and physicians were present on the Friday which I selected for the day of my visit. With this number the room was quite crowded. The females were arranged in a row in the hall, admitted one by one, placed on a table, the limbs separated and held by an *interne* on each side, the organs exposed to the light from a window opposite, and but a few feet distant from the patient. About twenty patients were examined. M. Jobert employed different specula, the cylindrical, the bivalve, and in some instances several blades or spatulæ, introduced separately. He applied the hot iron on this occasion in two cases. In one case the mouth and neck of the uterus, before the application, was swelled, reddened, and presented superficial ulcerations. He allowed the iron to remain in contact, I should judge, nearly half a minute. It gave rise to a hissing sound, considerable smoke, and the characteristic smell of burning animal matter. It recalled from the dimmed memory of the classical studies of youth the story of the Cyclops; yet the application did not appear to occasion suffering. The patient did not shrink, nor utter any expressions of pain. In the other instance there was extensive destruction of the uterus from ulceration. In this case the application was apparently unattended by pain. The woman complained when the speculum was introduced but not while the uterus was burning.

Of the effects of this method of treatment, in these cases, I cannot speak from observation, as I have not been present at any of the subsequent *burning* days. I am not aware that the practice has been adopted by any other of the Parisian surgeons, a fact certainly not in its favor, but not sufficient perhaps to disprove its propriety.

In one of the patients examined by M. JOBERT there was complete extrusion of the uterus, forming a tumor between the thighs of the size of a coffee cup. The bladder was dragged down and connected with the upper part of the tumor, and there existed also considerable prolapsus of the rectum. M. JOBERT introduced a sound into the uterus, and also a catheter into the bladder to show its situation. In the latter operation the instrument required to be passed in a direction downward and outward. The patient was dismissed without any treatment.

In my last letter I stated that Epidemic Cholera had ceased to exist at Paris. This was based on a statement to that effect in the *Gazette des Hopitaux*. The statement proved to be erroneous. Cases have been admitted into the several hospitals up to the present time. At La Charité some cases have been developed within the wards. The number of cases that have occurred is however small, and is diminishing. No alarm is felt in the city, nor does there appear to be that general tendency to diarrhœa which accompanies this disease when it prevails to much extent. So far as I can judge from the hospitals, the city is healthy.

You will recollect that the subject of artificial syphilization, as a mode of protecting the system against the syphilitic virus, was agitated here a few months since. The subject is now only referred to as one of the curious by-gone medical novelties that have produced a transient excitement. The practice was condemned by the Academy of Medicine, and interdicted by the Prefect of the Seine. I am informed that its author, M. AUZIAS TURENNE, has admitted the error of the doctrine, which, if true, is some thing in palliation of having prematurely advocated it. A medical friend stated to me that much injury was done by his experiments at the hospital LOURCINE, and that a young Prosector of Anatomy who had submitted to experimental inoculations for syphilis, is now laboring under constitutional effects of the disease thus induced,

which resist medical treatment, and will be likely to ruin his health permanently.

An instance of sudden death from the effects of Chloroform has lately occurred at the hospital St. Antoine. The following is a statement of the facts given by the operating Surgeon M. RICHARD, to the *Societé de Chirurgie* on the day that the event took place:

"The patient entered the ward of M. RICHARD to have removed a polypus of the uterus. The polypus was fibrous, of the size of a small apple, with a peduncle of the size of the little finger, sufficiently long, attached to the middle of the anterior face of the uterine cavity. The tumor was reached, without difficulty, and easily brought down for the operation. The patient presented the ordinary symptoms, except that the hemorrhage had been but moderate, and, although somewhat pallid, she had preserved her strength and the conditions of health as regards sleep and appetite. I decided to cut off the polypus, and to touch the surface to which it was attached with the perchloride of iron, a practice which, lately, in a similar case, had been attended with prompt and complete success.

"There was in my view a double contra-indication in the case, for the use of chloroform. First, the slight pain of the operation, and second, the sub-anæmic state of the patient. This fact I presented to her at each of my morning visits, and I even entreated her to consent that I should operate without chloroform; but the poor woman declared that it must be impossible to remove a tumor from within the body without great suffering, and at any rate she would not be operated on unless she was put to sleep. My opposition yielded to hers, having so often employed, and witnessed the employment of chloroform in cases which much less than this one demanded its use.

"At nine o'clock this morning, everything being prepared for the operation, I proceeded to induce anæsthetization. The woman rested on the bed; and I permitted her to lie without disturbing her, intending to place her in a proper position at the moment of the operation. I simply removed a pillow, in order that the head might be on the plane of the rest of the body, I said to her "look at me and breathe as I do," and I then imitated the respirations of a person sleeping quietly. I poured a certain quantity of chlo-

roform upon a compress of five or six thicknesses, and placed it before the face at a certain distance in order that the vapor of the chloroform might be well mixed with common air. I administered the chloroform myself up to the moment when the position of the patient was changed, and I may here state to the Society that I have always pursued this course. For two years I have often been placed at the head of an active surgical service, particularly at the St. Louis hospital, and, so far as my memory serves me, I have never failed myself to produce the anæsthesia up to the moment when it was necessary to take the bistoury.

"The respiration and the pulse were regular for about a minute. Two or three times I added a certain quantity of the anæsthetic liquid, the precise quantity not determinable, the administration being conducted in the way it is daily done by every one. At the end of a minute there was agitation. I abandoned the compress to see if I could not operate upon the patient lying on the bed, without altering her position. The agitation increased, she struggled so as to require to be held by several assistants, and talked incoherently. The compress which I had entrusted to an *élève*, by my direction was removed, and soon replaced with a fresh dose of chloroform. From this moment the agitation ceased. I ordered the patient to be turned so that the limbs might be placed out of the bed. This second period, commencing with the agitation, lasted from a half minute to a minute at most. I had introduced my hand into the vagina and drawn out the polypus, to the peduncle of which a ligature was attached. About two minutes had elapsed from the commencement of the administration of the chloroform, and the compress had been withdrawn for some seconds, I felt for the pulse and found none. I let go the polypus, and it was drawn back. The respiration continued, but slowly; the face became cadaveric, and the eye lustreless. Quickly the head was lowered and the legs and arms raised. The face resumed a little color; respirations continued, but became more and more infrequent. I then produced artificial respiration by making rhythmical pressure on the chest. At the same time the assistants resorted to blows on the thighs, the calves of the legs, the arms, and friction on the face. Several times we titillated the top of the larynx. All these efforts were unavailing. On suspending the

artificial respiration there were two or three long inspirations, after long intervals, and then cessation. Coldness became general but the beating of the heart was still heard, although feeble, by one of the *internes*. These efforts were continued for ten minutes. My two colleagues, M. ARAN and M. HERARD, entered just as I had opened the trachea. I practiced insufflation through the orifice while some one continued the artificial respiration. M. HERARD introduced into the precordial region two needles communicating with a powerful galvanic battery. The thoracic muscles were violently convulsed, but no pulse was developed. At length we ceased further exertions after half an hour's duration of this terrible contest.

"In order that this deplorable misfortune may prove as instructive as possible, I will invite any member to propose questions, in case some details may have escaped me."

M. GOSSELIN who made the autopsy in the presence of M. M. RICHET, DEBONT and MARJOLIN, repoi ted as followes: No marked appreciable lesions were discovered. The lungs were healthy excepting a little sub-pleural emphysema, without ecchymosis. The heart was flaccid and empty. This softness was especially marked in the walls of the right cavities. There was but little blood in the cavities. Coagulated blood was nowhere found; it preserved its fluidity everywhere. There was no encephalic congestion. In the superficial veins of the head there were some bubbles of gas, but this was due to cadaveric decomposition. In a body which we opened immediately, in the amphitheatre, we found the same development of gas. In the veins of the liver, also, there was a little gas.

To sum up, so far as we could judge, the autopsy did not bring into view any cause of death. We removed the blood found in the cavities of the heart, placing in separate bottles that taken from the right and the left side. The blood did not present any of the odor of chloroform.

M. DEBOUT stated that an analysis of the blood demonstrated the presence of a very minute quantity of chloroform.*

* The foregoing account is from the *Gazette des Hopitaux*.

ON PARAPLEGIA DUE TO VARIOLA AND OTHER CAUSES INDEPENDENT OF A PERSISTENT LESION OF THE SPINAL CORD.

Translated from the Gazette des Hopitaux; April 22, 1854.*

In connection with facts pertaining to paralysis symptomatic of cerebral lesions, of which we have lately reported several instances, it will be of interest to present facts relating to paralysis either idiopathic or symptomatic, but occurring independently of any appreciable persisting lesion of the nervous centres. Illustrations of the latter kind are frequently met with, especially in cases of paraplegia. It is very rare to find examples in cases of hemiplegia, although they occasionally occur, and but a short time since, we reported a remarkable instance. The facts to which we propose to devote a brief space, and which have lately fallen under observation, relate to paraplegia, and some of them to a species of paraplegia, respecting which authors in general are silent—we refer to paraplegia due to variola.

The first instance of the latter, to which our attention has been called by M. TROUSSEAU, was in a patient, of whom we have already given our readers some account. A young female who entered the hospital for a *hydro-peritonitis*, and who had been treated with calomel, was improving, when she was attacked with fever, pains in the loins, and vomiting. Under the impression, at first, that the pain and febrile movement were owing to an exacerbation of the peritoneal inflammation, M. TROUSSEAU prescribed again calomel. But the fever persisting, and becoming more intense the following day, without any augmentation of abdominal pain and tenderness, it became necessary to abandon this first impression. On the other hand, the pains in the loins had become exceedingly acute, and on farther examination it was a matter of not a little surprise to find that the inferior extremities were para-

* This article is referred to in the second letter from Paris written by the Translator.

lyzed. They were absolutely powerless, and the sensibility also was considerably diminished.

Taking into consideration the existence of several cases of small-pox in the ward, and recollecting that he had seen, several times, the eruption of variola preceded by a transient paraplegia, M. Trousseau at once diagnosed, in the case of this young female, a paraplegia due to an *intoxication variolique*, and predicted that the eruption would shortly appear. It was not long before this prediction was fulfilled. On the day following a characteristic eruption covered the face, the chest, and portions of the extremeties.*

A short time before, they who are accustomed to follow M. Trousseau in his visits had seen a young female with a paraplegia of the same description, which continued only during the prodromic stage of variola, disappearing the moment the eruption took place. By a singular coincidence there occurred, at the same time, a case precisely similar in the service of M. Rostan. A young female entered with fever, acute pain in the loins, and paraplegia. Twenty cups were ordered. The next day the paraplegia did not exist, but well marked variola.

At this moment, in the ward appropriated to nursing women, there is a woman, whose infant died with cholera, who has also had variola preceded by paraplegia.

It should be remarked that in all such cases the paraplegia does not continue except during the prodromis period, or at most, during the continuance of the variola. Generally the patients recover entirely the use of the limbs after the complete evolution of the eruption.

In the same ward (St. Bernard) there is a woman affected with idiopathic paraplegia, which does not appear to be connected, either symptomatically, or sympathetically, with any lesion, or other affection. This woman entered the hospital for pulmonary catarrh. Afterward, having been cured of her pulmonary catarrh, she was seized with catarrh of the intestinal canal, of which she was relieved by a few pills of the nitrate of silver. She was convalescent, and on the point of leaving the hospital, when she

* This case was seen by the Translator.

found her lower extremities paralyzed, the paralysis confined to motion, sensibility being preserved. M. TROUSSEAU prescribed thirty wet cups, by which were taken away about five ounces (by weight) of blood. The next day the paraplegia had disappeared. The patient was cured.

An instance quite similar to the latter presented itself during the past year in the service of M. TROUSSEAU. A man was admitted for rheumatism affecting the shoulder. He was treated with belladonna. The rheumatism left the shoulder and fixed itself in the cervical plexus, from which followed paralysis at the arm, affecting both motion and sensation. Satisfied that this paralysis was due to a rheumatic affection, and that it did not involve a cerebral lesion, M. TROUSSEAU continued the same medication, and in a short time both the rheumatism and paralysis disappeared. This man stated that he had had an attack of paralysis after taking a cold bath while heated, and that the paralysis in a short time disappeared of its own accord.

The inference from these facts, to which might be added many others of a similar character, is, that we must not be in haste to form a grave prognosis in cases of paraplegia, or of paralysis of different parts of the body, which often depend on slight causes; nor should we hasten to oppose a medication active, energetic or painful to an affection which may disappear of itself in a short time.

A. F.

ART. II.—A CASE OF HYPERTROPHY OF THE LEFT VENTRICLE, COMPLICATED WITH PLEURISY, &c.—PARACENTISIS THORACIS.

BY J. D. MITCHELL, M. D., OF DARWIN, ILLINOIS.

The patient, Henry Taylor, aged twenty-seven years, is a farmer by occupation, is said to have had bad health from his childhood. Had dropsy of the peritoneum at the age of eight or nine years, and has had a very large abdomen since that time. He has had several attacks of pneumonia and pleurisy. He first came under my care October 7th, 1853, for an attack of bilious or acute dysentery. This was somewhat obstinate, and did not yield to treatment till the third week. During this period, and even when he was not able to walk the floor from debility, he had a very full, hard and strong pulse, one hundred per minute. His spleen was much enlarged, and from accounts, has been in this condition for several years.

November 11, he again consulted me for anasarca of the inferior extremities. At this time he had the same full, hard, strong and frequent pulse as before, with strong pulsations of the heart over the precordial region. The anasarca disappeared in the course of three weeks, under the use of blood-letting, hydrogogue purgations, diuretics and an occasional mercurial; so that he was able to do considerable day labor through the month of December and a part of January; but frequently told me that if he exerted himself to any extent, he "was short of breath," and that it made his "heart beat." At the time he consulted me for anasarca, my attention was first directed to his heart as a seat of disease, and I had some fears that he was laboring under hypertrophy of the left ventricle; but as there were other derangements, such as enlargement of the spleen, scanty urine and torpid liver, sufficient to account for the anasarca, paid but little attention to the heart symptoms.

On the 20th of January, 1854, after being exposed to rain and

cold the day before, he was taken with chilliness and pain beneath the left axilla and in the left shoulder, of a somewhat acute and lancinating character. This continued without any treatment, except of a simple nature used by the family, until the 26th when I was requested to visit him, a distance of three miles. As I could not see him on account of professional engagements, at my request W. J. CHENOWETH, M. D., who was in my office when I examined the patient last, visited him on the 26th and 28th. I suggested to the doctor the propriety of making a careful exploration of the chest, as the probability was that he was laboring under chronic pleurisy. He reported to me his conviction of the existence of fluid in the left pleura. The patient was freely cupped over the seat of pain, and was attended with decided relief. Dover's powder was given, to procure rest, at night, and small doses of tarter emetic through the day.

January 30th, I visited him, and found him laboring under the following symptoms and physical signs: Pulse full, hard and strong, one hundred and ten per minute; tongue covered with a thick yellowish fur, and quite dry; superficial veins distended; face somewhat of a turgid appearance, and a livid cast. He is hoarse and does not speak above a whisper; cough troublesome and hoarse; expectoration scanty and tough; breathing short and labored, and much increased by the slightest exertion. Abdomen large, spleen much enlarged, urine high colored and scanty, but little pain on the left side.

Physical signs.—He lay on his back, with an inclination to the left side, and his shoulders elevated. The right shoulder was a little depressed in the sitting position, intercostal spaces partly obliterated. There was dullness on percussion, amounting to flatness, over the whole of the left side, even to the top of the chest. The right side elicits the natural sound, if any deviation from health, a little dull. On applying the ear to the left side, there were no sounds heard, except the pulsation of the heart near the spine and under the sternum. The vesicular murmur was marked and exaggerated on the right side. The pulsations of the heart could be heard and felt over the whole of the right side. No breathing movements on the left side, remarkably contrasting in this respect with the right. The left side measured one-half inch more than the right.

Treatment.—From the fact that there is a decided inflammatory tendency, and derangement of the secretions generally, and more especially of the digestive organs, I ordered, calomel 10 gr., Dover's powder 10 gr., to be followed in eight hours with the infusion of senna and sulph. magnesia; and repeated next day in the same manner. With the view of acting on the kidneys, the respiratory organs, and the exhalants generally, I ordered tart. emetic iv. grs., nit. potass. ʒii., cr. tartar ʒi., in water vi.; a table-spoonful every three hours. Dovers powder at night.

February 1. Symptoms much as before, with the exception that the pulse is some reduced in volume and frequency, and expectoration more free. The purgatives acted freely, and brought away a large quantity of dark green and feculent matter. He has perspired freely. Physical signs unaltered. The treatment was continued, omitting the mercurial. A large blister was placed over the left side, and the region of the spleen and adjoining thorax freely cupped.

February 3d. Pulse one hundred and ten, full, hard and strong. Tongue somewhat dry and coated. Ordered blood-letting xvʒ., calomel iiigrs., Dover's powder viiigrs., one every four hours till four are taken. A large blister over the spleen and thorax. Antimonial mixture continued. The infusion of digitalis three times per day.

February 5. Pulse somewhat reduced in frequency and force; kidneys acting more freely; has been purged freely, and ejections of a dark-green cast; apex of the heart is felt at the right of the sternum; the lividity of the face and surface of the body is evidently increasing. The dyspnœa is also increasing. He is not able to help himself, and much fatigued from the slightest exertion. He is inclined to sleep most of the time, with some tendency to coma. There is no evidence that the fluid is being absorbed, and if relief is not had very soon he must die from a deficiency of oxygen in the blood. I consulted the patient and friends in reference to the operation of paracentisis thoracis, and expressed my opinion that he could not live long without the operation; and that though the operation might not save him, his prospects would be more favorable for recovery.

February 6th. Visited him in company with Dr. Cammowers.

Symptoms as before; much the same course of treatment continued. We are of opinion that there is hypertrophy of the left ventricle, a large quantity of fluid in the cavity of the left pleura, and great enlargement of the spleen. We concur in the opinion that he should have the benefit of an operation. We were satisfied that if the many derangements of the system were the results of the probable existing hypertrophy, the operation would afford only temporary relief; but we were convinced that the fluid in the pleura was the result of separate and local inflammatory action.

February 8th. Yesterday the patient and friends gave their consent to have the operation performed to-day. The symptoms are much as they have been for some days past. The lividity of the face is slowly increasing, an increased tendency to coma, sleeps most of the time if not disturbed by his attendants, and when asleep is constantly picking and working with the bed clothing, rational when aroused, does not speak above a whisper, coughs but little. The apex of the heart is felt under the right nipple; pulse one hundred, full and strong; left side flat on percussion, and measures one inch more than the right side; intercostal spaces of the left side entirely obliterated, and cellular tissue injected.

The operation was performed in the presence of Dr. CHENOWETH, who assisted, and of several friends of the patient. As we had no trocar and canula, the instruments used were a sharp pointed scalpel and a female catheter. A small delicate leather was placed over the external orifice of the catheter, to act as a valve, which proved a good expedient to prevent the entrance of air into the chest during the flow of fluid. The spot selected, was the space between the fifth and sixth ribs, half way between the spine and center of the sternum. The wound externally was half an inch, and just large enough through the pleura to admit the catheter. Nothing was discharged till the catheter was introduced, when in the course of twenty-five or thirty minutes one gallon of fluid, some colored with blood, escaped. During the escape of fluid, the patient complained of sharp pains beneath the sternum; owing, most probably, to the tearing up of adhesions between the pericardium and pleura costalis, and the compressed lung and pleura, whilst those organs were assuming their natural position. His breathing improved from the time the fluid began to escape;

and after all had escaped, it was easy, and but little accelerated. The apex of the heart was felt beating faintly to the left of the sternum, but a little higher up than natural. He appeared much refreshed and relieved after the operation; but his pulse remained unaltered.

Treatment:—Morphine and ipecac, to procure rest, and pil. hydrarg. 10 grs. at night. A table spoonful of the following was given three times a day:

℞.	Iodide Potassa,	ʒi.
	Tr. mur. ferri,	ʒii.
	Tr. Iodine,	ʒii.
	Water,	℥vi.

Bitart. potass was ordered freely, and purgatives when necessary. The infusion of digitalis was continued up to the 15th, with the view of exciting the kidneys and controlling the action of the heart and arteries.

15th. There is evidently an accumulation of fluid in the peritoneum, but not very large in quantity. Percussion over the left side elicited the natural sounds, except a preternatural dullness over the heart. Right side probably natural, though I have thought there was a little dullness throughout its whole extent. Pulse as before,—cough not troublesome, and expectoration slight, —tongue clean. He has walked across the house several times, and sits up by the fire occasionally and is evidently gaining strength slowly.

20th. Symptoms as before,—pulse full, hard, and strong,—abdomen more swollen,—tongue clean.

24th. Patient died last night between 9 and 11 o'clock. He had, to all appearance, improved up to the evening of his death; was able to sit up by the fire frequently through the day, and the same evening sat up and ate his supper at the table, heartily. At nine he was as well as usual, and requested his attendants to retire, which they did, leaving him resting on his right side. At eleven he was found dead in the same position.

Autopsy, Twenty-four hours after death, as reported by myself and Dr. Chenoweth, and afterward compared. External appearance:—countenance natural, no discoloration of the body, abdomen much distended and fluctuating. On opening the thorax,

both lungs were found adherent to the costal pleura almost their entire extent, only a small space under the seat of the operation being full. The pericardium was pushed towards the upper end of the sternum, and attached to it by firm adhesions. The right pleura contained about a pint of fluid blood, probably the result of position at death. The left pleura contained about half a pint of clear fluid. The surface of the lungs presented a reddened and highly congested appearance, and their substance throughout was of a dark red appearance, with here and there a drop of blood exuding from the cut surface. They were somewhat solid and of a hepatized appearance, but would yield and crepitate slightly on pressure. The pericardium contained between a pint and a quart of transparent fluid. The right auricle was much distended with fluid blood, which would not escape by changing the position of the heart. The left ventricle and auricle were entirely empty. The heart was removed and placed in water till the next day. The walls of the left ventricle measured from eight lines to one inch in thickness, and the columna carnea were much enlarged. On opening the right ventricle two fibrinous concretions, of a whitish color, firm and tough, three or four inches in length, and a line and a half in thickness, together weighing one drachm, were removed. They were taken either from beneath the tricuspid valves, or the auriculo-ventricular opening. As our attention was not directed to their vermicular appearance, we did not carefully observe their location; but they were loose, affording no resistance on lifting them out; and as a small piece was afterwards removed from beneath the valves, the probability is the first two came from the same place. The valves were roughened and congested in appearance.

The peritoneum contained about one and a half gallons of transparent fluid. This membrane, with the exception of the portion covering the intestines, was covered with innumerable lumps or granules, from the smallest size to that of a pea. They were most numerous in the lower portion of the abdomen. The mesentery contained a few of these granules, with here and there a livid, elevated and roughened patch, from one to four lines in diameter. The spleen was very large, probably weighing eight pounds. The liver was small in size, and easily broken down. The great

omentum was pushed up over the stomach into a roll. It was of a hard, rough, granular feel, and much thickened, measuring an inch in the thickest parts. It was perforated in two or three places.

Remarks.—I have reported the above case as it was recorded from day to day, so as to give as correct a view as possible of its complicated nature, omitting many things of less importance. The points of interest in this case are its remarkably complicated nature, and the relation the complications sustain to the hypertrophy of the heart. Through the whole course of the disease there was evidently inflammatory symptoms greater than would naturally proceed from the hypertrophy; so that it is reasonable to conclude that some of the morbid conditions were not the result of the heart disease. The fluid in the left pleural sack was evidently the result of inflamation of that membrane, and that, too, of an acute character, caused by exposure. It was from this fact that I thought best to evacuate the fluid, and as it did not re-accumulate, it is evident that this view was correct; though, if the other morbid conditions had been fully known at the time, it would have been deemed useless to operate. On account of the quantity of fluid in the pleura, it is not known at what time the pericardial effusion first existed. The congested and solidified appearance of the lungs resulted, most probably, from the force of the heart's action immediately before death. When did these fibrinous concretions accumulate? before or after death? They were of too firm a structure to have been formed after death. May they not in some way or other (probably mechanically) have been the immediate cause of death? It is probable that the disease of the peritoneum, with its granular deposits, was of long standing.

Bibliographical Notices.

Art. III.—*On Rheumatism, Rheumatic Gout, and Sciatica, their Pathology, Symptoms, and Treatment*, by Henry Fuller, M. D., Contab., Fellow of the Royal College of Physicians, London; assistant Physician to St. George's Hospital, &c., &c.

Sydenham styled rheumatism "the poor man's gout." The disease of the poor man has attained in our day a wonderful ascendency over its patrician congener. Gout is a disorder now seldom spoken of, hardly dreaded at all, a stranger to most young practitioners in our country. It seems to have been superseded by rheumatism, which has proved to be one of the most formidable of diseases. Rheumatism is not only a disease of great frequency and of extreme suffering, but is now known to entail other diseases of the most terrible character. Affections of the heart, it is now admitted, result more frequently from rheumatism than from any other cause. These affections often complicate and render formidable the mildest cases of rheumatism, not only inducing present distress but darkening all the future of the sufferer. Their incursion moreover may be so insidious as to escape the detection of the physician, and thus they often pass to a point where remedies are unavailing before the patient is aware of his danger.

In view of these facts we think it cannot be questioned, that few diseases are more deserving of attention than rheumatism; and next to its treatment no point connected with the malady would seem to have higher interest than its cause. Almost universally since the affection first attracted the attention of medical men it has been referred to cold, and yet the analogies between rheumatism and gout, remarked by Sydenham, ought to have excited suspicion long ago that the cause of the disorder might be one generated within the system rather than one acting from without. The author of the work before us holds that rheumatism has its origin in "a vitiated condition of the circulating fluids," and in

favor of that opinion he refers to the more prominent features of the disease, its attacks ushered in by premonitory fever, its local symptoms erratic, yet remarkably symmetrical, and the very common consequence of affections of the heart, lungs, and other internal organs. The materies morbi, he inclines with Dr. Prout and Dr. Todd to believe, is *lactic acid*, the product of mal-assimilation, which accumulates in consequence of defective cutaneous action.

This being the pathology of rheumatism, according to Dr. Fuller, the treatment suggested is one which will neutralize the acid, or eliminate it from the system, and nothing, in this view of the affection, can be more hopeless than the attempt to subdue the fever, allay the pain in the joints, or control the other symptoms of the disease, so long as the blood is infected by the poison. The great danger of the complaint being inflammation of the heart, an important indication is to avoid anything likely to excite or irritate that organ. We give the author's plan of cure in his own words:

"The treatment to which I usually have recourse at the outset of the attack, is that alluded to at the beginning of this chapter. It is made up of alkalies and the neutral salts, with colchicum, calomel, and opium. Sometimes a little antimony is added, sometimes the aid of purgatives is had recourse to, and occasionally, though rarely, I deem it expedient to premise a moderate blood-letting. Baths are never employed if the skin is acting freely; but if, instead of being bathed in perspiration, it remains dry and hot, and burning, I then endeavor to stimulate its action by means of the vapor or the hot air bath.

"As venesection, if employed at all in acute rheumatism, is to be made use of with the view of producing an impression on the train of morbid actions, and expediting the operation of other remedies, it must necessarily take the lead of all other measures; and the first question to be decided, therefore, in every case of acute rheumatism, is as to the propriety of having recourse to its employment. It has been already pointed out, that the use of the lancet is not necessary for the relief of the pain or the tranquillization of the pulse, and that in the pale and weakly it exercises an influence prejudicial to the patient by rendering more irritable his already irritable and excited heart. But in the young, plethoric, and robust, in whom secretion is insufficient, whose pulse is full and bounding, and whose skin is dry and hot, and burning, it certainly does assist in expediting the action of other remedies, and so in promoting recovery. These, therefore, are the only ca-

ses in which it should be employed, and a single bleeding of from eight to ten ounces is generally sufficient. It relieves that excessive congestion on which the want of secretion, in great measure, depends, and which forms an obstacle to the action of those remedies on which we rely for effecting a cure.

"The next point is as to the expediency of giving calomel and purgatives. If the bowels are acting once a day, it is seldom necessary to make a more frequent call upon their activity, but a dose of calomel and opium may be prescribed with the view of modifying the character of their secretions. If the bowels are sluggish in their action, and the dejections dark colored and offensive, a dose of calomel combined with opium should be administered at once, and followed after the lapse of six or eight hours, by a draught containing an infusion of senna, together with half an ounce of the potassio tartrate of soda, and twenty minims of the vinum colchici. And the amount of opium should be so adjusted to the dose of the purgative, as to procure one full and copious evacuation without the distress attendant upon purging.

When once the bowels have been freely acted on, the state of the secretions must be our guide as to the repetition of the calomel and the morning laxative. If the tongue be rather dry; if the bowels continue sluggish, and the dejections dark colored and offensive, the mercurial and the purgative should both be repeated for several successive days. If, on the other hand, secretions from the bowels be healthy, the further exhibition of mercury is unnecessary. If, again, the secretions be copious but unhealthy in character, the calomel and opium should be repeated at night, but need not be followed by a purgative in the morning, as after one or two doses of the mercurial, the motions become lighter colored, more bilious in appearance, and of a less offensive character.

"Whilst the state of the intestinal secretions are thus attended to, alkalies or the neutral salts should be administered in combination with colchicum, full doses of opium, and sometimes a little antimony. At one time I used to content myself by giving a saline draught, with the addition of fifteen or twenty grains of the carbonate of potash, or the carbonate of soda, three or four times in the course of the day, but it soon became apparent that in order to obtain the full benefit of alkalies, it is necessary to give them in very much larger quantities—in doses proportioned to the extreme acidity of the system.* In large but ordinary doses they generally mitigated the severity of the symptoms, yet failed in affording more than partial relief, but when they were exhibited in sufficient quantities, and in combination with other reme-

* Though I speak throughout of the administration of alkalies, I generally prescribe the potassio tartrate of soda, which, readily undergoing decomposition in the stomach, acts quite as energetically as corresponding quantities of the alkaline carbonates, and is much more readily tolerated by the stomach.

dies, the most agonizing pain was speedily removed, and the fever subdued with marvellous rapidity. I have, therefore, ever since administered them largely, and have pushed them until my object has been attained. Nor have I seen reason, on any one occasion, to hesitate in following out this plan of treatment. It has now been pursued in a large number of cases, and in almost every instance has produced the most astonishingly favorable results. The patients have speedily lost their pains and have proceeded to convalescence. In twenty-three out of thirty-nine cases in my note-book, the pulse was tranquilized within forty-eight hours from the commencement of treatment, and in twenty-eight the pain was lulled, and the local inflamation greatly subdued within the same time, whilst in the remaining cases a longer period was required, in consequence either of previous constipation, or of the co-existence of some internal complication.

The form in which I usually administer the remedies, is that of a simple saline or a nitre draught, to which, if the patient be a person of average strength and robustness, bathed in profuse perspiration, with red, swollen, and exquisitely painful joints, a furred tongue, loaded with urine, and a full and bounding pulse, I usually add from two to three drachms of the potassio tartrate of soda,* ten or fifteen minims of the vinum colchici, from fifteen to twenty minims of the vinum antimonii, and from ten to fifteen minims of the tinctura opii, or of Battley's sedative solution, to prevent the salt running off by the bowels. This draught is repeated, for the first twelve or twenty-four hours, at intervals of three or four hours, according to the strength of the patient and the severity of the attack; and if the pain is excessive, I prescribe a pill containing from half a grain to a grain and a half of opium, or an equivalent dose of Dover's powder to be taken once or twice a day, taking care to increase or diminish the quantity of the sedative, according to the circumstances of the case; on the one

* The virtue of alkalies and their salts in rheumatism depends, I believe, upon their power.

1st. Of acting as restorers of all the alkaline condition of the system.

2dly. Of assisting to maintain the solubility of the fibrin, and thereby preventing its deposition on the valvular apparatus of the heart.

3dly. Of acting most powerfully as sedatives, and calming the action of the heart and arteries.

4thly. Of increasing the metamorphosis of tissue, and proving active provocatives of an increased secretion of urine, whereby the elimination of the materies morbi is assisted.

Whatever their mode of action, however, their effect in restoring the alkalinity of the system, and of allaying the fever and subduing the pain and inflamation, which accompany, if they be not consequent upon, the opposite condition, is very remarkable, as is also their influence in calming the action of the heart and arteries, and in causing an increased flow of urine, and a vast augmentation in its solid constituents. These facts receive very striking illustration in the cases reported at the end of this chapter.

hand, avoiding constipation and narcotism, and on the other, guarding against diarrhœa.

"Sometimes, though rarely, the stomach does not easily tolerate these large doses of the neutral salts, and in such cases, the greatest benefit is derived from the addition of a little lemon juice and an alkaline carbonate, forming a saline effervescing draught. With this variation an instance rarely occurs in which the medicine deranges the stomach, or produces the slightest disagreeable effects.

When once the medicine has begun to take effect, which is evidenced by the gradual decrease of the pain, the tranquilization of the pulse, and the increase in the quantity and specific gravity of the urine; it is repeated every fourth hour only, and then every fifth or sixth hour; and usually at the expiration of two or three days, I find its work in great measure accomplished: the saliva, by that time has lost its acidity, the pains and inflamation have subsided; the pulse has fallen, probably, from 120 to 85 or 90 beats in a minute; the tongue has become moister and less red and furred; the urine more abundant, less loaded with the lithates, and of a higher specific gravity; and the perspiration less acid, less sour smelling, and less profuse. In proportion as these symptoms of amendment manifest themselves, so is the dose of the alkalies decreased, until after the lapse of three or four days, I usually feel justified in commencing the administration of quina during the day, taking care to maintain a free action of the bowels by exhibiting, now and then at bedtime, two or three grains of the acetous extract of colchicum, together with aloes or rhubarb, and if necessary, a grain of calomel or blue pill. Should there be the slightest return of pain, the least increase of coating on the tongue, or, indeed, any evidence of returning fever, the use of quina is at once abandoned, and alkalies are again resorted to."

We regard this monograph of Dr. Fuller's as a valuable contribution to our literature on practical medicine. It is an exceedingly interesting work, and we cordially recommend it to our readers, as one from which they will derive much sound philosophy and much reliable practice.

Art. IV.—*Woman, her Diseases and Remedies; and, a Treatise on Acute and Chronic Diseases of the Neck of the Uterus.* By Charles D. Meigs, M. D., &c., &c.

The first of these volumes is the third edition of a work which first appeared in 1847; the other is the report made by Prof. Meigs to the American Medical Association on the diseases of the uterus, and which makes a part of the 6th volume of the Society's transactions. We are glad that this treatise has been rendered more accessible to the profession by its publication in a separate form, for it is one which deserves to be far more extensively circulated and read than it is likely to be in the work in which it originally appeared. More than once we have had occasion to refer reproachfully to the neglect of the volumes annually emanating from our great medical Congress, by the body of the profession. The mass does not yet appear to have felt the leaven diffused through a limited circle by the Association; and if the report of Dr. Meigs on Uterine Diseases had remained locked up in its Transactions it would have been a sealed book to most practitioners.

The larger volume of which we have given the title above is already well known to our readers. It has been extensively read; it is, eminently, a readable book. The famous Dr. Johnson is said to have declared that one of the very few books which could induce him to quit his bed an hour or two before his accustomed time of rising in the morning was *Burton's Anatomy of Melancholy*. We should think that these Letters of Dr. Meigs on Woman might tempt even an indolent student to abridge his morning nap and to protract his studies far into the night. When first sent abroad the style of the author was severely criticised by many reviewers, as wanting in the elevation and dignity becoming a grave scientific subject. Dr. Meigs has carefully revised his third edition, and besides many additions made to its matter he has attempted to reform his manner of the vices complained of, and

hopes by the time another edition shall be called for "to have rendered the style and language still less exceptionable." But while endeavoring to avoid what seemed low on the one hand, he has studied to escape from dulness on the other, keeping in mind the precept of Horace, "that the reader is to be gratified as well as instructed." "But shall people," he asks, "who desire to make a contribution to the art that has absorbed their whole existence, refrain from doing so from a fear of offending in the matter of their manner? Would that be American like? And shall everybody go out of the world making no sign?" He has made his sign, and every American physician owes him respect and admiration for it. His books are real contributions to medical science and art.

The treatise on the diseases of the neck of the uterus may be regarded as in some sort an appendix to his Letters on the Diseases of Woman, or more properly a continuation of that larger work. It is illustrated by numerous plates, many of them colored, and forms a volume of exceeding beauty. Dr. Meigs begins his report by some details of the methods of examining females. The operation of touching and the "metroscopic" one are both a "direful necessity," but the one, he thinks, "is not essentially more revolting to the feelings of the sufferer than the other." His remarks on this subject, as indeed his practical observations throughout the work, are judicious and just.

ART. V.—*Clinical Lectures on Pulmonary Consumption.* By THEOPHILUS THOMPSON, M. D., F. R. S., Fellow of the Royal College of Physicians, London; &c., &c. Philadelphia: Lindsay & Blakiston, 1854; 8vo. pp. 239.

These Lectures appeared originally in the London Lancet, and were delivered at the Brompton Hospital for Consumption in 1851.

The most interesting question connected with phthisis, at the present time, is the power of Cod-liver oil to arrest or cure the disease, and a hospital for consumption, where more than six hundred gallons of the remedy are used annually, may be expected to afford some valuable statistics on the subject. The fact that it is administered to such an extent at the hospital is strong evidence of its efficacy. Dr. THOMPSON, as the result of all his observations, places great reliance upon the remedy. He believes that it acts by improving the constitution of the blood, thus improving the general health, restoring the bowels to a natural condition, expanding the pulse, lessening the expectoration, and moderating the night sweats. In many instances, he says, he has found it to supersede the necessity for the use of any other remedy. He has not found the effect of the oil to be, to disorder the bowels, and he has, when given alone, prescribed the eating of a little orange peel, or the taking into the mouth a little table salt, before and after a dose of the remedy, to cover its taste; but he prefers giving the oil combined thus:—

"An ounce and a half of cod-liver oil, four drops of creasote, two drachms of compound tragacanth powder, and four ounces and a half of aniseed water—an ounce to be taken thrice daily."

Dr. THOMPSON has found that cod-liver oil produces its good effects specially in women and children, in whom the proportion of red corpuscles is stated by chemists to be small. He has used it with decided advantage in neuralgia, sciatica, and rheumatism, when those complaints were associated with anemia. There being a pathological condition which it is adapted to correct, it follows

that there are cases of phthisis which do not require its use, and in which it is not beneficial; these are cases not marked by anemia. When found appropriate, a persevering use of the oil must be made. Dr. T. relates the case of a patient affected with vomica, in 1848, who was still taking the remedy in 1853. If he omitted it at any time, whatever his diet might be, he lost weight. Once he laid it aside for nine weeks, and in that time his weight fell off ten pounds.

Cocoa-nut oil has proved in Dr. Thompson's hands an excellent substitute for the oil of the cod-liver. In reference to this vegetable oil he says:—

"The results in the first thirty patients to whom I administered it bear comparison with those obtained in the first thirty-seven patients for whom I prescribed cod liver oil, chiefly in the year 1845. Amongst the patients to whom cocoa-nut oil was given, there were some instances of arrested phthisis, as decided as any I have been accustomed to attribute to the use of cod-liver oil, over which it possesses advantages in reference to economy and palatableness; and it is interesting to remark, that its efficacy was experienced by some who had previously taken cod oil uselessly, and by others who had discontinued it on account of nausea."

The *oil of walnuts* has also been administered in consumption, and the results in some cases have been satisfactory.

There is a growing confidence with the profession in the curableness of consumption. It is now believed not only that the disease may be arrested, but, by some eminent pathologists of large observation, that the tubercular deposit may be removed.

We recommend the lectures of Dr. Thompson to our readers. The publishers have issued the work in a style eminently creditable to their taste.

Editorial Department.

AMERICAN MEDICAL ASSOCIATION.

We proceed to lay before our readers the details of the late meeting of our National Medical Association, at St. Louis, for which we are indebted to the *Republican* newspaper of that city. The attendance of delegates was large, but in casting our eyes over the list, we perceive that the following States were not represented, to wit: Vermont, Delaware, Maryland, North Carolina, Georgia, Arkansas, Florida, Texas, California. Dr. Usher Parsons, of Rhode Island, the Senior Vice President, called the Association to order, when the following letters were read from the President, Dr. Knight.

New Haven, Conn., April 25, 1854.

To Edwin S. Lemoine, M. D., Secretary of the American Medical Association, St. Louis, Missouri.

Dear Sir: As the time is near at hand for the assembling of the American Medical Association, it is proper for me to inform you, and through you, the members of the Association, that it will not be in my power to be present at the annual meeting. I have come to this conclusion after much reflection, with great reluctance. The meetings of the Association have always been periods of high gratification to me.

The acquaintance there formed, and the intercourse had with the members of the profession from every part of the country, have been among the most gratifying events of my life. I have looked forward to the annual meeting of this year with the anticipation of unusual satisfaction. There was a portion of the country new to me, to be visited; there were members of the profession, probably in large numbers, few of whom were known to me, to become acquainted with, in addition to the ordinary attractions of the meeting, which made me strongly desirous for my own sake to be present.

At the same time, I feel the full weight of the obligation to attend the meeting this year, arising from the high honor which has been conferred upon me by the Association. Perhaps no one, so little deserving, has received so many and so great favors from the medical profession, and I take the opportunity to renew my acknowledgments for these favors.

It is with no ordinary emotion that, although absent, I greet those of my professional brethren who will be present at St. Louis. I do this with the most cordial feelings, and with the strongest wishes for their welfare. Allow me, also, to express the confident hope that their wise deliberations will result in the promotion of the best interests of the profession, and advantage of the country, and to ask that the blessing of God may rest upon their labors.

With esteem and respect, your obedient servant,

J. KNIGHT.

New Haven, April 15th, 1854.

To Usher Parsons, M. D., Providence.

My. Dear Sir: As the time is near at hand for the meeting of the American Medical Association at St. Louis, it is proper for me to inform you that I shall not probably be able to attend it. Matters of a purely personal nature will, I suppose, deprive me of that pleasure. As you are the Senior Vice President of the Association, I trust you will be present and perform the duties which will devolve upon you. I give you this early notice that you may have time to prepare such an address as may be proper for the occasion. That you will do this as you do everything else, (in the best manner,) I have no doubt.

With esteem and respect, your obedient servant,

J. KNIGHT.

A letter from Dr. Bradle, one of the Secretaries, stating his inability to attend the meeting, was also read. Dr. Washington, of St. Louis, then proceeded on behalf of the Committee of Arrangements to welcome the Association to the city. He was followed by Dr. Parsons in a brief address. The roll having been called, the reports of the Treasurer and the Committee of Publication were read, after which a Nominating Committee was raised to select officers for the ensuing year.

D. Atlee offered the following resolution which was carried:—That the Association arrange to meet at from 9 o'clock, A. M. to 1 P. M., and from 3 to 5 P. M., while it shall remain in session.

A resolution was now offered to provide for the future meetings of the Association, that they shall be held alternately in the Northern, Southern and Western portions of the Union. The resolution

gave rise to considerable discussion, and was finally laid on the table.

On motion the meeting adjourned to 3 o'clock, P. M.

AFTERNOON SESSION.

The meeting commenced according to adjournment. The Senior Vice President, in the absence of the President, delivered the following able address:—

Gentlemen of the American Association:

It has been customary for the presiding officer of this Association, on retiring from the Chair, to give a valedictory discourse. On the eve of my departure from Rhode Island, our venerable President notified me of his inability to attend and perform this part of his official duty, which deprives us of the rich entertainment anticipated from so distinguished a scholar and professor. The notice being entirely unexpected, I am unprepared to offer you anything worthy of your attention, and my inclination would, therefore, be to remain silent, but for an apprehension that this course might operate as a precedent to others, on similar occasions. I will, therefore, present you, rather as an apology for a discourse, a few thoughts that have suggested themselves while on my way to this city.

In order to promote the honor, dignity and usefulness of our profession, objects for which the Association was instituted, its members must be gathered from all parts of our country and united into one harmonious fraternity, and must adopt such measures as will promote and perpetuate among ourselves an *esprit du corps*, a conformity of sentiment and feeling, and a combination and co-operation in action. This has already been accomplished in a degree by holding our annual meetings in distant and remote cities of the Union. They must continue to be carried to new and ever-varying spheres of action, until their beneficial influence is made available to the whole profession. As the metallurgist, in separating a heterogeneous mass of particles, passes over it a magnetic bar, to attract the pure iron and steel with a force proportioned to its proximity, so must the meetings of this Association, in order to gather into one fold suitable materials of growth and strength, be carried from place to place over the whole mass of our population, attracting from the dross and impurities all that is valuable and worthy of reception and incorporation into a homogeneous and efficient brotherhood. These considerations influenced me in voting to accept the invitation to hold the present meeting in Missouri, notwithstanding the toil and fatigue of the journey, and its remoteness from the residence of a large proportion of the delegates. It is here, more than elsewhere, that the meetings of this

Association are likely to prove beneficial, by a rapid enlargement of our numbers.

Whoever glances at a map of the Mississippi Valley, extending from the base of the Alleghany and Cumberland mountains to the margin of the Rocky mountains—from the highlands bordering on Lake Superior to the Gulf of Mexico—and contemplates the fertility of its soil, its adaptation for cereal productions, which are so necessary for human subsistence and increase, and who surveys the majestic Mississippi, navigable throughout this whole territory with its numerous navigable tributaries pouring in their treasures on either side, and adds to this the vast mineral resources, lead, copper, iron and coal, which are far more conducive to healthful opulence than the golden regions of California; whoever, I say, cordially surveys all these elements of future growth, expansion and power, and moved onward by the agency of steam, on land and water, and in labor-saving mechanical and manufacturing operations, can arrive at no other conclusion than that this vast territory, the largest and most favored one by nature, of any under the whole canopy of Heaven, will in time be densely populated *with scores of millions*, and become the seat of empire of the western world, and that it is destined to be the grand theatre of human progress, in every department that is calculated to advance the dignity and promote the happiness of the human family.

And in no department of human affairs is progress here more sure than in medical knowledge. Our Atlantic States have inherited a reverence for European opinions, which, although commendable in our early medical history, is at the present day, less favorable to American progress and discovery in medicine. We need to interrogate nature and experience more, and European opinions less; we need mental as well as political independence; a freer swing of thought and purpose that characterizes our brethren of the West, and which this Association is adapted to call into action.

There is much to encourage you in your recent discoveries and contributions—in the results of vivisections of saurians, the half of which if confirmed by future experiments, will shed new light on Physiology. And again, in the discoveries made relating to the process of digestion, by your late lamented BEAUMONT, of St. Louis, who, for the theories and speculations before prevailing, has substituted ocular demonstration of the *modus operandi* of that wonderful process, by submitting to it the various articles of human aliment, and determining the length of time required for converting each into healthful chyme; and again in the successful labors of DRAKE, in traveling from State to State throughout the valley, collecting the history and character of its epidemics, by personal inquiry and observation. Others of your venerated dead might be mentioned, but of others who have pursued a like inde-

pendent course untrammeled by prevailing European authorities, who now stand at the head of the profession, it would ill become me to speak, seeing that some of them are present and unused to such freedom of remark. But to the junior members of the profession we would say, unite with us—follow the example of the distinguished pioneers I have named, and of Caldwell and Harrison who have gone to their reward—throw the result of your labors into the common stock of medical knowledge accumulated by this Association, where, rest assured, they will be duly appreciated and be appropriated to the common benefit of the profession and of mankind, and redound eventually to your everlasting honor and professional fame.

Gentlemen, eight years have elapsed since the preliminary meeting of the convention which recommended the formation of this National Association, and the results of its labors have equalled the expectations of the friends of reform and progress in our profession. The six published volumes of transactions have successively increased in value and interest, and are enduring monuments of the ardent zeal and patient industry of the numerous contributors, and there is every reason to hope that our future labors will continue to be crowned with equally increasing value and interest.

Gentlemen, we are reminded by the history of the past year of the frailty and uncertainty of human life. Death has removed many of our brethren of this Association, and among them is the illustrious Beaumont, already mentioned, and Dr. George C. Shattuck, LL. D., of Boston, an extensive and highly esteemed practitioner, and formerly President of the Massachusetts Medical Society.

He was reputed the wealthiest physician in New England, and his numerous bequests to educational, humane and religious institutions and enterprises, and to private charities, proclaim that his philanthropy was proportioned to his opulence.

We are reminded, by the return of this anniversary, of the terrible catastrophe that occurred at Norwalk. The Association had received from our brethren of New York a cordial welcome, and were honored with overflowing hospitality. After a delightful and profitable session, the Association adjourned, and many of them were on their way, in cars, to their respective homes, in joyous anticipation of rejoining their families, when in a moment—in the twinkling of an eye—seven of them were launched into eternity, leaving us the solemn admonition that in the midst of life we are in death. I should deem it a duty, on this occasion, to pay a tribute of respect due to their memory by portraying their many virtues and excellences as men and as physicians, had I not learned that justice will be done them by an abler pen. Our brethren of New York, with characteristic magnanimity, which

adds to their claims on our gratitude, immediately on the announcement of the disaster, summoned a meeting, and passed resolutions expressive of their deep sorrow at the sad event, and tendering their condolence to the bereaved families. They also appointed a committee to prepare an eulogy on the deceased, to be offered at this annual meeting; and the distinguished ability of the chairman and members of that committee is a sufficient guaranty that justice will be done to the memory of these, our lamented brethren.

A resolution was now offered that the address be referred to the Committee of Publication for incorporation in the transactions of the Association, which was carried.

The following letter from a permanent member at Marseilles was read and found satisfactory:

Marseilles, March 19, 1854.

Dr. Edward L. Beadle, Secretary of the American Medical Association:

Please to state to the American Medical Association, at their meeting in St. Louis, that I have presented to the Imperial Academy of Medicine at Paris, the sixth volume of their transactions, that it has been received by that distinguished body with much favor, and that it has been referred to a committee for examination and report, (M. Velpeau, Chairman.)

I have also promised M. De Bois, perpetual Secretary of the Academy, to endeavor to procure for the Academy the five previous volumes, and I feel assured that the Academy would take much pleasure in establishing a correspondence with our American Medical Association.

With great respect, yours truly.

The following memorial by members of the Medical Association of the city of New York, was now read:

TO THE AMERICAN MEDICAL ASSOCIATION.

At a special meeting held in the city of New York, on the 12th of May, 1853, of such members "of the American Medical Association as reside in this city and its vicinity, and such as were remaining here from abroad, for the purpose of expressing their feelings respecting the disaster on the New York and New Haven railroad at Norwalk, in Connecticut, which resulted in the death of so many valuable members of the Association," after adopting sundry resolutions expressive of their sentiments and sympathy with the bereaved, a committee of seven was appointed to devise some suitable method of commemorating the event and the worth and professional character of our lamented associates, and to recommend said plan to the next annual meeting of the Association.

At a meeting of the Committee thus appointed it was resolved, that, in the opinion of the Committee, the most appropriate method of carrying into effect the objects had in view in their appointment, would be by preparing a narrative of the event, together with a brief biographical sketch of each individual, which shall embrace a notice of the birth-place, age, place of education, when and where they derived their medical authority, where located after entering the profession, tastes and habits of life, if any, to what particular branch of the profession devoted, what positions held in the profession, either as professors, presidents, or officers of Medical Societies, what literary labors, medical or otherwise, performed, what done to advance the science of Medicine; and that such narrative and biographical memoirs be published in the next volume of the transactions of the Association.

The Chairman and Secretary of the Committee beg leave to state that, although they have taken measures to procure the materials for preparing the Biographical Memoirs, answers to all the letters of inquiry have not been received. In reporting the above proceedings of the Committee to the Association, they would respectfully recommend the adoption of the plan proposed, and suggest that they be authorized to complete the narrative and memoirs in question, and to transmit them to the Committee of Publication.

JOS. M. SMITH, M. D., *Chairman.*

To E. L. Beadle, M. D., *Secretary.*

New York, April 24th, 1854.

The following resolutions, passed at the annual meeting of the New Hampshire Medical Society, were read:

At the Annual Meeting of the New Hampshire Medical Society holden at Concord, June 1, 1853, the following resolutions were unanimously adopted:

Resolved, That it is the decided opinion of the New Hampshire State Medical Society that no Delegate should be admitted to membership in the American Medical Association, who represents a Medical Society which numbers among its members any person or persons who adopt as their system of practice any form of empiricism.

Resolved, That the Secretary of this Society be instructed to transmit a copy of this resolution to the Secretaries of each of the State Medical Societies, and to the Secretaries of the American Medical Association, previous to their next Annual Meeting.

E. K. WEBSTER,
Secretary N. H. Med. Society.

Boscawen, June, 1853.

Dr. Gross, of Louisville, Kentucky, offered the following resolution:

Resolved, That hereafter it shall be considered disorderly for this Association to give costly entertainments.

Some discussion arose, and several amendments were offered; one of which was, that the word improper should be substituted for disorderly, and that liquor and cigars shall be excluded from such entertainments.

Dr. Coons, of St. Louis, remarked in this connection, that the objects of the Society had been more directed to efforts of entertainment than to promote science. Several members advocated the adoption of the resolution without reference to what had taken place, but to provide against the practice becoming an evil in future. The resolution finally passed as amended.

The Committee for the nomination of officers now appeared, and made the following report:

President.—Charles A. Pope, M. D., of Missouri.

Vice Presidents.—E. D. Fenner, M. D., of Louisiana; N. S. Davis, M. D., of Illinois; Wm. T. Wragg, M. D., of South Carolina; John Green, M. D., of Massachusetts.

Secretaries.—E. S. Lemoine, M. D., of Missouri; Frank West, M. D., of Pennsylvania.

Treasurer.—D. F. Condie, M. D., of Pennsylvania.

The report was accepted, and the officers called to fill their several stations. Dr. Storer, of Boston, Dr. White, of Buffalo, Dr. Brainard, of Chicago, and Dr. Reed, of Tennessee, were appointed a committee to conduct the newly appointed officers to their seats on the platform.

Dr. Pope was not in attendance on account of sickness in his family, and the Senior Vice President was called upon to officiate in his stead. Dr. Fenner returned thanks for the honor conferred upon him, and regretted the absence of the President.

On motion, the city of Philadelphia was fixed upon as the next place of meeting of the Association.

Dr. Condie, Chairman of the Committee of Publication, offered certain resolutions to the effect, that yearly dues of the members of the Association should not be less than three dollars, and insisting on their being regularly paid. The resolutions, after considerable discussion, were adopted.

A resolution adopted by the Detroit Medical Association, extending an invitation to the Association to hold its next annual meeting in Detroit, was now read. It was received and laid on the table.

Dr. Atlee, on behalf of the committee to procure a stone with a suitable inscription for the monument of Washington, reported

that he had adopted, at the suggestion of the lamented Dr. PIERSON, of Salem, the design for the stone, representing HIPPOCRATES refusing the presents of King ARTAXERXES, who invited him to go to Persia and succour the enemies of Greece. The sculpture was on beautiful marble, by SAMUEL BECK, a young artist of Lancaster county, Pennsylvania, from a daguerreotype copy of VIARDOT's celebrated picture, presented to him by Miss ABBY L. PIERSON. The execution of the work is in the highest style of art, and evinces extraordinary talents in the artist.

The stone is of Vermont marble. The resolution authorizing the movement was adopted at Richmond. There was a lack of funds for the accomplishment of this object to the amount of four hundred dollars, and members of the Association were respectfully invited to contribute, as they felt inclined, to make up the amount.

On motion, Dr. CHARLES HOOKER was appointed Treasurer pro. tem., as the Treasurer elect was not in attendance.

A gentleman now announced to the meeting that Dr. POPE, the President elect, was in the room. Two of the committee appointed for that purpose then escorted the President to the chair. He addressed the Association in a few remarks as follows:—

GENTLEMEN: There are occasions when the mouth is dumb, because the heart is full. Such I feel my present position when I behold around me so many members of a noble profession. I am grateful for the honor you have conferred upon me, and however unworthy in other respects, I will yield to none in a just appreciation of the lofty and noble profession of which we are members. In this view, Gentlemen, I feel that the honor was not so much intended for myself as for the advances made in science by the profession generally, in the West. For myself, I return you the thanks of a grateful heart. I will endeavor to act to the best of my abilities, and again I thank you.

Dr. NINIAN PINKNEY, of the U. S. Navy, addressed the Association on the re-organization of the Medical Bureau of that branch of the public service.

The address was listened to with marked attention, and the eloquent style and impassioned delivery of the speaker, proved him at once an enthusiastic lover of his profession, and possessed of a mind capable of mastering its subtleties and advancing its interests in every department. His address explains itself, and will, we doubt not, prove interesting to members of the faculty, as well as to the general reader.

A communication was received from the Hon. L. M. KENNETT, inviting all the members of the delegation and the Faculty of the city in general, to partake of the hospitalities of his house, in an entertainment to be given in the evening.

A communication was also read from the President of the Board having charge of the Institution of the Blind, of St. Louis, inviting the members of the delegation to visit that Institution during their stay in the city.

A resolution was adopted authorizing the Committee of Nomination to nominate and appoint other committees that may be needed during the session.

Drs. MOORE, MCPHEETERS and REYBURN, extended general invitations to the members of the delegation to visit them at their residences.

The meeting then adjourned to nine o'clock next morning.

SECOND DAY—WEDNESDAY.

The meeting convened as per adjournment at nine o'clock, A. M., Dr. POPE, President, in the Chair.

The minutes of the preceding day were read, and after one or two slight amendments, were adopted.

On motion, it was resolved, that the Association adjourn the afternoon session at 4 o'clock, P. M.

Dr. ATLEE, of Lancaster, Pennsylvania, moved that the memorial from the members of the American Medical Society of Paris to the American Medical Association, be read and referred to the Committee of Medical Education, which motion carried. The memorial is as follows:

Memorial of the American Medical Society of Paris, to the American Medical Association:

We, the members of the American Medical Society of Paris, beg, through our delegates to present the following memorial:

The National Association of the United States has had its origin mainly from the consciousness felt by physicians of the low state of medical education in our country, and from the desire universally entertained by them of elevating the standard of the medical profession. We, by our sojourn abroad, from our intercourse with those educated here, have become more painfully conscious of our infirmities and deficiencies at home, and for this reason beg leave once more to urge upon the Association the necessity of a change. While acknowledging, however, the superiority of education in Europe, we are far from desiring to arrive at equality by imitating their methods. We therefore beg to urge the following plan for the consideration of the Association: That in each State there be appointed by the Medical Society of the State a Board of Examiners, which Board shall be chosen every year from members of the Society, and which shall perform its duties the following year in

the place, and immediately before the sitting of the State Medical Society; that their examinations be public, and that every one whomsoever may apply who shall be introduced by a member of the Society; and that no one can hereafter become a member of the State Medical Societies nor of the American Medical Association who has not the certificate of having satisfactorily passed such an examination. As to the qualifications to be required of the candidate, we do not think it advisable to enter into particulars. They should not, however, believe in any peculiar doctrines or methods; no certificates of attendance upon courses of lectures should be necessary, but solely the possession of the necessary amount of medical knowledge to practice his profession with safety and honor. This plan in no way interferes with the established schools; its effect upon them could only be salutary. Students would attend those institutions where those branches of a medical education that can only be acquired by attendance upon lectures are best taught.

All of which is respectfully submitted to the consideration of the Association.

DR. HAMMER, *St. Louis.*
DR. MURPHY, *Cincinnati.*

The President announced the reading and consideration of the annual reports of committees would now be in order. The following chairmen of committees submitted abstracts of their reports of the diseases and epidemics committed to their investigation, as appearing in their several sections and districts.

Dr. F. CONDIE, of Philadelphia, on the Causes of Tubercular Disease, was not prepared to report, and requested further time.

Dr. GEO. B. WOOD, of Philadelphia, on Diseases of Parasitic origin not being present, had sent a verbal request to be discontinued. His request was accordingly granted.

Dr. JOHN A. ATLEE, of Lancaster, Pa., on Epidemics of New Jersey, Pennsylvania, Delaware, and Maryland, not being prepared to make a full report, requested to be continued on the same committee.

Dr. D. J. CAIN, of Charleston, S. C., on Epidemics of South Carolina, Florida, Georgia and Alabama, read an abstract of his report. It was referred to the Committee on Publication.

Dr. W. L. SUTTON, of Georgetown, Ky., on Epidemics of Tennessee and Kentucky. He had made a partial report, but of such meagre materials that he requested to be continued. His report was referred to the Committee of Publication when ready.

Dr. GEORGE MENDENHALL, of Cincinnati, O., on the Epidemics of Ohio, Indiana, and Michigan. He presented a report for the years 1852 and 1853, from which he read a brief abstract. The

report was referred to the Committee on Publication with the request to have it published in the proceedings of the present year.

Drs. PALMER and ATLEE each spoke at some length of the great and lasting good that might be accomplished if all the members of the Association would duly record their individual experience of epidemics, and report all such cases to the Chairmen of Committees. Dr. ATLEE had been two years Chairman of such a committee and during that time had only received two such reports, one from New York, and a partial one from Pennsylvania. He stated that he had used great exertions to get professional men to co-operate in this work, and appealed to the whole faculty to do everything in their power to promote this great object. He very ably impressed the necessity of co-operation by all the profession with the several committees having these reports in charge.

Dr. R. S. HOLMES, of St. Louis, Mo., on Epidemic Erysipelas read an abstract of his report. It was referred to the Committee on Publication.

Dr. E. D FENNER, of New Orleans, on Epidemics of Louisiana, Mississippi, Texas and Arkansas. He read a comprehensive abstract of his report—dwelling principally on the ravages of the cholera and yellow fever, and the causes and the means of treatment.

Dr. FENNER had not completed his report, and Dr. McPHEETERS offered a resolution that Dr. FENNER be requested to complete his report, and submit it to the Committee on Publication to be published. The resolution was adopted.

Dr. MUSSEY, of Cincinnati, now made a motion to suspend the order of regular business, to allow Dr. LINTON, of St. Louis, to express his views with regard to the Pathology of the Yellow Fever. A suspension of business was made for this purpose.

He expressed his views very clearly and at some length on this subject. He advocated the idea that vegetable decomposition was not necessary to the production of the autumnal diseases of this country. He considered yellow fever nothing more than an aggravated type of bilious fever, caused by the retention of hydrocarbonaceous substances in the blood. In other words, the agencies producing yellow fever where *Northern blood* subject to the heat of Southern latitudes.

A motion was made and carried, that Dr. LINTON be requested to draw up the substance of his remarks, to be presented to the Committee of Publication.

Dr. DANIEL BRAINARD, of Chicago, Ill., on the Constitution and Local Treatment of Carcinoma. He requested further time to make a full report.

Dr. N. S. Davis, of Chicago, Ill., on the Influence of Local Circumstances on the Origin and Prevalence of Typhoid Fever. The report, of which he read a brief abstract, was referred to the Committee on Publication.

Dr. Donaldson, of Baltimore, on the Present and Prospective value of the Microscope in Disease. Dr. Donaldson, in a communication, stated that his report was complete, but he not being present, it was, without reading, referred to the Committee on Publication.

The report of the Committee on Medical Education was received but owing to its length, its reading was passed over. It was referred to the Committee on Publication.

Dr. Pope, Chairman of the Committee on Prize Essays and Volunteer Communications, now made the following report:

Mr. President: The Committee on Prize Essays and Volunteer Communications, respectfully report that the Essays submitted to their consideration were nine in number, of which one was presented as a volunteer communication. The committee have carefully examined the whole of these Essays and bestowed upon them the attention which a sense of the importance of the duty assigned them imposes. They feel free to say that some of these Essays possess undoubted merit, both in matter and style, and they admit in them evidence of high scientific attainment as well as a familiarity with the graces of composition. But whilst cheerfully according these claims to their authors, the committee have preferred to be governed in their choice by considerations of originality and practical import, rather than of mere theoretic speculation, however finely portrayed. The committee, have, consequently, concluded to award but a single prize. The Essay selected is entitled "An Essay on a new method of treating Ununited Fractures and certain Deformities of the Osseous System." It bears a motto in French, which, being literally rendered in modern English, reads, "and notwithstanding all the pains I have heretofore taken, I have reason to praise God, in that it hath pleased Him to call me to that branch of Medical practice commonly called Surgery, which can neither be bought by gold nor by silver, but by industry alone and long experience."

If it please the Association I will now break the seal of the packet superscribed by the same motto, and declare the name of the successful competitor.

Dr. Pope then broke the seal and announced the name of Prof. Brainard of Chicago.

Dr. McPheeters moved that Prof. Daniel Brainard take the stand and give the Association an abstract of his new mode of treating fractures, &c., which motion was carried, and Prof.

Brainard accordingly came forward, and in an able manner gave the requisite information.

Dr. Hooker, of Connecticut, Treasurer, now introduced the subject of annual assessments, and called the attention of the Association to the fact that he was ready to receive the dues of members.

Dr. Elbert offered certain resolutions to the effect that a committee be appointed to recommend to the next annual meeting, for consideration, any alteration they might deem necessary in the Constitution, By-Laws, &c., and also that the place of holding future annual meetings of the Association be determined by ballot, without the intervention of the Nominating Committee. The resolutions, after much discussion, were lost.

Dr. Guthrie offered the following resolutions, which were unanimously carried:

Resolved, That in the Secretary of the Treasury's recommendation to Congress to abolish or materially modify the duty on such crude drugs not producible in this country, as are used in the laboratories of the country in the manufacture of chemicals, we recognize a wise provision for the future protection of the profession and the community at large, from impure and sophisticated medicines.

Resolved, That a copy of this resolution be signed by the proper officers of this Association, and transmit the same to the Secretary of the Treasury and to the Committee on Ways and Means.

Dr. J. B. Johnson now stated to the meeting that he had a letter from Dr. Stephen Williams, of Illinois, enclosing a preamble and resolutions, which he desired to read to the meeting. He then read the letter, of which the following is a copy:

American Medical Biography, for the American Medical Association assembled at St. Louis.

Mr. President: At the last meeting of the Association at New York, I presented the following preamble and resolution through my friend Dr. Stewart of New York, which, with some amendments were laid on the table:

As we are constantly called upon to deplore the ravages of death among the illustrious and worthy members of our profession throughout the United States.

Resolved, That a Standing Committee be appointed by the Association to procure memorials of the eminent and worthy dead among the distinguished physicians of our country, and present them to this Association for publication in the transactions.

I now beg leave to call up the resolution through my friend Dr.

J. B. JOHNSON, of St. Louis. The medical biography of our country is intimately related to the history of it, as the lives of eminent men are identified with the history of the times in which they lived. In the United States there have been, and are to be found, medical men whose lives and actions are ornaments to human nature, and whose brilliant career in the cause of humanity and science reflect honor and dignity upon our country. We suffer nothing in this respect in comparison with the learned and eminent physicians in Europe.

The profession of medicine contains more learned and distinguished men than any other profession or calling, and some memorial of their lives and actions should be persented to the world in a more durable form than the periodicals of the day, and particularly of the newspaper press. A more permanent and proper place for the publication of such memorials, would be in the Transactions of the American Medical Association, and without disparangement to any other articles which have heretofore been published in these Transactions—which memorials would be read by the members of the profession with great interest and improvement. Short biographies need take up but little room in the publication, and this objection to the proposed movement may be obviated. We are constantly noticing that death spares no rank or condition of men. Those who contend most skillfully against his insatiate ravages, themselves fall victims to his all conquering sword. Within a very short space of time, we have been called to lament the death of Dr. NATHAN CHAPMAN, the former President of this Association, of Dr. SAMUEL G. MORTON, WM. E. HORNER, ISAAC PARRISH, G. S. PATTESON, J. KEARNEY RODGERS, DAN. DRAKE, the great medical pioneer of the West, SAMUEL MCCLELLAN, AMOS SWITCHELL, ABIEL PIERSON, G. C. SHATTUCK, ARCHIBALD WELCH, and very many others which time will not permit me to enumerate.

This is not the place to speak their eulogies. Some permanent notice of them and of many others who have recently died, should be published in the Transactions of this Association, where the useful improvements and discoveries of the living should be recorded, and the memories of the worthy dead should be preserved. I hope the resolution will prevail.

[Signed,] STEPHEN W. WILLIAMS,

LAVINA, Winnebago county, Illinois, late of DEERFIELD, Massachusetts.

The Preamble and Resolutions referred to in the foregoing, were then on motion adopted. The Chair then announced that he would appoint the Committee, contemplated by the resolution, hereafter.

Dr. MCILVAINE offered the following resolution:

Resolved, That in the opinion of this Association, the practice of Professors reading lectures to their classes, no matter with how much care selected from the musty records of antiquity, is a miserable apology for teaching, is *prima facie* evidence of their inaptness to instruct, and is inimicable to medical progress.

It was, on motion, laid on the table.

Dr. French submitted the following resolution, which was carried:

Resolved, That a committee be appointed to enquire what State or other Society, represented in this Association, are in fellowship with irregular practitioners.

Dr. Blachford, of Troy, read a letter from Dr. A. D. Spore, stating that he (Dr. Spore) had been for some time investigating the subject of Hydrophobia, to ascertain what influence the weather had upon the disease, and in the letter he requested that communications on the subject might be sent to him by members of the Faculty who had opportunities of making observations. Dr. Spore not being a delegate it was moved that Dr. Blachford be appointed Chairman of a Committee for the investigation of this subject.

The following resolution was offered by Dr. Dowell:

Resolved, That a committee be appointed to investigate the improvements of the instruments for Lithotomy by Nathan R. Smith, Paul F. Eve, and Dr. McDowell.

The resolution was laid on the table.

The following was offered by Dr. S. M. Smith, of Columbus, Ohio, which was carried:

Resolved, That a Standing Committee of —— be appointed by the Association on the subject of Insanity as it prevails in this country, including its *causatire* as hereditary transmission, educational influences, physical and moral, social and political institutions, &c. Its forms and complications, curability and means of cure and prevention.

The announcement was now made that at 4 o'clock, P. M., there would be fifteen omnibuses at the door of the Hall awaiting the members of the Association, together with numerous buggies and carriages, to conduct them to the residence of Col. O'Fallon, who had extended them a general invitation to an entertainment.

The meeting adjourned to 3 o'clock in the afternoon.

AFTERNOON SESSION.

The Association met as per adjournment.

Dr. Samuel P. White, of the University of Buffalo, submitted the following resolution, which was carried:

Resolved, That the thanks of this Association be presented to Dr. J. KNIGHT, late President, for the very dignified, courteous and efficient manner in which he presided over its deliberations, and that he be respectfully requested to furnish the usual address for publication.

The Committee appointed by the American Medical Association to devise or consider some comprehensive plan for the more general, systematic and thorough investigation of subjects connected with medical science, made a report, to which was appended the following resolution:

Resolved, That the American Medical Association hereby recommends all Medical Societies to establish, in accordance with the plan detailed in the foregoing report, special committees for the selection, investigation, elaboration and publication of all subjects of interest connected with medical science.

The resolution carried, and the report and resloution was referred to the Committee on Publication.

Dr. ATLEE communicated to the meeting that he had received a letter from Dr. PARISH, Chairman of the Committee on Epidemics of New Jersey, stating that his report was yet unfinished, but would soon be ready for publication.

On motion, it was directed to be handed over to the Committee on Publication when finished.

Mr. DAVIS presented some specimens of milk to the Association, which he explained would, if used, prevent many of the diseases to which children are subject, arising from using putrid milk. He respectfully submitted the specimens to the consideration of the Association.

After a session of half an hour, the meeting adjourned till nine o'clock next morning.

THIRD DAY—THURSDAY.

The Association convened at nine o'clock, A. M. Dr. POPE, President, in the Chair.

On motion, the regular order of business was suspended for the purpose of filling the vacancy in the Nominating Committee from Iowa.

On motion, Dr. MCGINGAN was chosen to fill the vacancy.

The minutes of Wednesday's proceedings were read, and after a few unimportant amendments, were adopted.

Dr. MCPHEETERS stated to the Association that arrangements had been made with the different lines of travel from the city, to convey the members of the Association to their homes, free of

charge; and that all the lines and companies had agreed to the arrangement, excepting the New York and Hudson River Railroad Company.

The Secretary now read a communication from the Chairman of the Nominating Committee, requesting that body to meet. Also, a communication tendering the hospitality of the city of Burlington, Iowa, to those members who return by the Upper Mississippi.

Dr. ATLEE offered the following resolution, which carried:

Resolved, That it shall be the duty of the Publication Committee to append to each volume of the transactions hereafter published, a copy of the Constitution of the Association.

The following resolution, offered by Dr. GROSS, was also carried and Dr. GROSS was appointed by the Chair the committee designated:

Resolved, That a Committee of one be appointed by the Chair to inquire into the causes which obstruct the formation and establishment of our National Medical Literature, and to report the subject at the next annual meeting of this Association, or as soon thereafter as practicable.

The following communination from the Engineer and Superintendent of the Pacific Railroad, was read by the President:

DR. WASHINGTON, Chairman of the Committee of Arrangements.

Dear Sir: I am authorized by the Directors of the Pacific Railroad to offer to your Committee the use of the road, at your convenience, in case you should desire to show to the members of the Medical Society that are expected to meet here, the country in the neighborhood of St. Louis, and go a few miles out on what we hope will in time be the road to the Pacific Ocean.

If you will give me one day's notice, I will send out a special train, at such an hour as may suit your arrangements.

Very respectfully,
THOS. S. O'SULLIVAN,
Eng. and Sup't.

On motion of Dr. ATLEE, a vote of thanks was extended by the Association to the Directors of the Pacific Railroad.

The Chairman of the Committee of Assangements moved that the Association accept the invitation of the Company—with the information that 10 o'clock, A. M., on Friday would be a convenient hour for the excursion to be made, as this would allow opportunity for delegates, who wished to leave the city in the afternoon, to be in season for boats, trains, &c.

Dr. J. BERRIEN LINDSLEY offered the following resolution, which, on motion, was referred to the Committee on Medical Education,

with instructions to report at the next Annual Meeting of the Association:

Resolved, That this Association earnestly recommend to the few Western schools which still retain the rule of making four years' practice equivalent to one term at College, the abrogation of said rule, as holding out a strong inducement and temptation to young men to enter upon the practice of medicine with little or no preparation.

Dr. PAUL F. EVE, of Nashville, Tenn., submitted a resolution, which, after amendment, was carried:

Resolved, That a Committee of three be appointed by the Chair to report at the next meeting of the Association, the best means for preventing the introduction of disease by emigrants into our country.

The Chair appointed Drs. DICKSON, GRISCOM, and E. D. FENNER the Committee.

Dr. LINTON, of St. Louis, offered the following resolution which was also referred to the above named Committee.

Resolved, That in the opinion of this Association, Quarantine establishments afford no protection to States and cities against the invasion of epidemics such as cholera and yellow fever.

Dr. PENN offered the following resolution, which was carried:

Resolved, That the members of the Committee of Arrangements who are not members of the Medical Association, be invited to take seats in this Association, as members by invitation.

Dr. JAYNE arose and offered a resolution in relation to the memorial from the American Medical Society at Paris, to the American Medical Association, which was, at a previous meeting, referred to the Committee on Education.

Resolved, That the memorial from Drs. HAMMER and MURPHY be withdrawn from the Committee on Education.

Dr. JAYNE spoke at some length regarding the memorial referred to and the object of his resolution.

He stated that such a document implied the inefficiency of American Professors of Medicine to give students a complete and thorough scientific education, and cast unjust and shameful reflections upon the capacity of medical men in this country. He contended that such a document, being so disposed of, appearing in the published proceedings of the American Medical Association, to be read in all parts of the Union, would confer a lasting disgrace on the judgment and deliberations of that body, and on the whole Faculty in this country. He warmly supported the object of the resolution, and submitted it.

Dr. ATLEE remarked in this connection, that he knew something of the motives of the young men who wrote it, and was convinced that it was dictated by the best intentions, and without any desire on the part of the authors, to underrate the members of the profession, or medical science in this country.

Dr. ELBERT entered warmly into the discussion, and remarked that the Association should act upon the document as it appeared. That it spoke for itself, and that the Association had nothing to do with intentions outside of the language of the document.

Dr. McILVAIN wished the objection to the document more clearly specified than he had yet heard it. He believed it to have been sent in good faith.

Dr. EDGAR then made some statements about the loose and incompetent education received by some Physicians in this country in certain schools, before they were considered qualified and permitted to enter upon the practice of the profession. He instanced two young men who had commenced the study of medicine in his office, and whom after remaining six or eight months he candidly told that they would never make competent Physicians. The young men left, and in eighteen months or two years from that time they were regular practicing physicians, having passed through some school which he did not name. He contended that some protection was necessary. He said, moreover, that an effort was made some time ago in this State to establish a Board of Censors, under whose examination every student should be required to pass before entering upon the duties of the profession, but that it failed, the physicians arising *en masse* against it, with the single exception of Dr. LINTON

After some more discussion the memorial was withdrawn from the Committee of Education and laid on the table.

A communication was read from Dr. PEEBLES, chairman of the Committee on Epidemics of Virginia and North Carolina, requesting to be excused from the committee. The request was granted.

The Secretary stated that a document had been received from Dr. PHELPS, of New York, purporting to be an abstract of a paper explaining the relation between medicine and religion.

On motion the regular business was suspended to give place to the reading of the report of the Nominating Committee, of which the following is a copy:

REPORT OF THE COMMITTEE ON NOMINATIONS.

The Committee on Nominations, in fulfilling the duty imposed upon them, recommend the continuance of several of the special committees previously created, and the appointment of some new ones. They, therefore, submit the following list of Chairmen of special committees, with the subjects to them committed:

Dr. WORTHINGTON HOOKER, of New Haven, Conn., on Epidemics of New England and New York.

Dr. JOHN L. ATLEE, of Lancaster, Penn'a., on Epidemics of New Jersey, Pennsylvania, Delaware, and Maryland.

Dr. D. J. CAIN, of Charleston, South Carolina, on Epidemics of South Carolina, Florida, Georgia, and Alabama.

Dr. W. L. SUTTON, of Georgetown, Ky., on Epidemics of Tennessee, and Kentucky.

Dr. THOMAS REYBURN, of St. Louis, Mo., on Epidemics of Missouri, Illinois, Iowa, and Wisconsin.

Dr. GEORGE MENDENHALL, of Cincinnati, Ohio, on Epidemics of Ohio, Indiana, and Michigan.

Dr. E. D. FENNER, of New Orleans, La., on Epidemics of Mississippi, Louisiana, Arkansas, and Texas.

Dr. JAMES JONES, of New Orleans, La., on the mutual relations of yellow and bilious remittent fever.

Dr. D. F. CONDIE, of Philadelphia, Penn'a., on the causes of Tuberculous disease.

Dr. Jos. LEIDY, of Philadelphia, Pa., on diseases of the Parastic Origin.

Dr. A. P. MERRILL, of Memphis, Tenn., on the Physiological Peculiarities and Diseases of Negroes.

Dr. Jos. N. McDOWELL, of St. Louis, Mo., on Statistics of the operation for the removal of Stone in the Bladder.

Dr. F. P. PORCHER, of Charleston, South Calolina, on the Toxicological and Medicinal properties of our Cryptogamic plants.

Dr. DAN'L BRAINARD, of Chicago, Illinois, on the Constitutional and Local Treatment of Corcinoma.

Dr. GEO. ENGLEMAN, of St. Louis, Mo., on the Influence of Geological Formations on the Character of Disease.

Dr. HENRY TAYLOR, of Mount Clemmens, Mich., on Dysentery.

Dr. HORACE GREEN, of New York, on the use and effect of applications of Nitrate of Silver to the Throat in Local or General disease.

Dr. P. C. GOOCH, of Richmond, Va., on the administration of Anæsthetic agents, during Parturition.

Dr. CHAS. HOOKER, of New Haven, Conn., on the diet of the sick.

Dr. E. R. DABNEY, of Clarksville, Tenn., on certain forms of Eruptive Fevers, prevalent in Middle Tennessee.

Dr. SANFORD B. HUNT, of New York, on the Hygrometrical State of the Atmosphere in various localities, and its influence on health.

Dr. FRANK H. HAMILTON, of Buffalo, New York, on the frequency of deformities in fractures.

Dr. M. M. PALLEN, of St. Louis, Mo., on diseases of the Prostrate Gland.

Dr. H. A. JOHNSON, of Chicago, Illinois, on the Excretions as an index to the Organic changes going on in the system.

Dr. LEROY H. ANDERSON, of Sumpterville, Ala., on Typhoid Fever and its complications as it prevails in Alabama.

Dr. W. H. BYFORD, of Evansville, Ia., on the Pathology and Treatment of Scrofula.

Dr. N. S. DAVIS, of Chicago, Illi., on the Nutritive qualities of Milk, and the influence produced thereon by pregnancy and menstruation in the human female, and by pregnancy in the cow, and also on the question whether there is not some mode by which the nutritive constituents of milk can be preserved in their purity and sweetness, and furnish d to the inhabitants of cities in such quantities as to supercede the present defective and often unwholesome method of supply.

Dr. E. B. HASKINS, of Clarkesville Tenn., on the Microscopical Investigations of Malignant Tumors.

Dr. GEO. K. GRANT, of Memphis, Tenn., on the Sulphate of Quiuia as a remedial agent in tne treatment of Fevers.

Dr. R. R. MCILVAIN, of Cincinnati, Ohio, on the study of Pathology at the bedside.

Dr. E. S. COOPER, of Peoria, Ill., on Orthopædic Surgery.

Dr. ANDREW F. JETER, of Palmyra, Mo., on the modus operandi of the envenomed secretions of healthy animals.

Dr. S. M. SMITH, of Columbus, Ohio, on Insanity.

Dr. RENE LA ROCHE, of Philadelphia, Penn'a., on the Jaundice of Yellow Fever in its Diagnostical and Prognostical revelations.

Dr. CHAS. CHANDLER, of Rocheport, Mo., on malignant periodic fevers.

Dr. R. S. CHASE, of Portland, Maine, on Typhoid fever in Maine.

Committee on Plans of Organization for State and County Societies.—A. B. Palmer, Michigan; R. R. McIlvain, Ohio; D. L. McGugin, Iowa; E. R. Peaslee, New Hampshire; Thomas Lipscomb, Tenn.

Committee on Medical Literature.—Robert J. Breckenridge, Kentucky; A. A. Gould, Mass; D. L. McGugen, Iowa; J. B. Flint, Ky.. O. M. Langdon, Ohio.

Committee on Medical Education.—Wm. H. Anderson, Ala.; A. Lopez, Ala.; Andrew Murray, Mich.; A. Ramsey, Tenn.; R. D. Ross.

Committee on Prize Essays.—Rene La Roche, Pa ; Isaac Hays, Pa.; Alfred Stille, Pa.; J. B. Biddle, Pa.; Geo. W. Norris, Pa.; Joseph Carson, Pa.; Joseph Leidey, Pa.

Committee of Arrangements—Isaac Hays, Pa.; G. Emmerson, Pa.; Wilson Jewell, Pa.; Alfred Stille, Pa.; Francis West, Pa.; Wm V. Keating, Pa.

Committee on Publication.—Pliny Earle, New York; D. Francis Condie, Pa.; E. S. Lemoine, Mo.; A. March, N. Y.; E. H. Davis, N. Y.; C. R. Gilman, N. Y.

A warm discussion arose on the proposition to place a majority of physicians of New York on the Publication Committee, the effect of which would be to transfer the printing of the Transactions from Philadelphia to that city. The discussion continued for two or three hours, when the Association took a recess.

AFTERNOON SESSION.

The Association convened at three o'clock. Dr. Pope in the Chair.

A resolution was offered by Dr. Storer in relation to permanent members, which was unanimously carried.

The Treasurer said that he had an announcement to make for the benefit of the friends of the Association. He stated that in the morning he had taken a ten guilder piece, mistaking it for five dollars, and had in his possession a three dollar doubtful bill, which the Brokers refused, and that one of the members had taken a receipt for three dollars without paying the money. He advocated the rectifying of these mistakes.

A resolution was offered to the effect that W. S. Maus, M. D., of Pekin, Ill., be elected a permanent member—which was carried unanimously.

Dr. Atlee offered the following resolution, which was carried:

Resolved, That this Association earnestly recommend to their medical brethren in those States in which Societies do not exist, the immediate organization of State and County Medical Societies.

Dr. Ramsey offered a resolution, which, on motion of Dr. Coons, was laid on the table.

Dr. Breckenridge offered a resolution to the following effect:

Resolved, That the papers and documents of the Association shall hereafter be the exclusive property of the Association.

Which, as amended by Dr. Smith, was carried.

Dr. Phelps, of New York, again requested to read the document which he presented in the morning, and the reading of which was deferred to allow the Committee of Nominations to make their report.

Mr. Phelps took the stand, and read the following abstract:

The document I hold in my hand purports to be an abstract of a paper which traces the connection existing between medicine and religion in its origin and progress, and might receive the following style, to wit:

Religion an Element in Medicine, or the duties and obligations of the profession.

It naturally divides itself into parts; the former is mainly pictorial, the latter suggestive and practical. The general scope and bearing of the subject may be embraced under the following heads:

The substance and general outline may be stated in the following propositions:

1. A recognition of the complex nature of man, his immortality, free-agency, natural religious propensities, and susceptibility of indefinite intellectual improvement.

2. That medicine, or the art of healing, as an art, must have been of very ancient origin, probably cœval with, or shortly subsequent to the fall of man; but, as a science, of much later date.

3. That the earliest authentic record of medicine and the profession, and the collateral art of the apothecary, is to be found in the Bible, and localized in Egypt, the great depository of learning and art in that early age.

4. That among the Israelites under the Theocracy, and down to the time of the Apostles, medicine and the profession were more or less identified with, or under the direction of the patriarchs, prophets, priests and evangelists, or other prominent and good men.

5. That the Greeks, though idolaters, were nevertheless deeply imbued with a sense of the claims and sacred obligations of their religious rights, and that Hippocrates and his disciples, as evidenced in the celebrated oath bearing his name, avouched the highest religious sanctions in entering upon the responsible duties of the profession of medicine.

6. That through the long night of the dark ages, the convulsions the vice and downfall of nations, science, medicine and religion feel the shock—languish and struggle for an uncertain existence, but are not destroyed; and with the dawning of the reformation and the consequent revival of learning, and the spirit of free inquiry, the arts, science and medicine as well as religion, receiving new impulses extend their domains, freedom of thought develops new elements of improvement, and the commonwealth of letters measurably disenthralled, gives lustre and momentum to knowledge, and high promise of success to succeeding generations.

7. That the art of printing—the discovery of a new continent—

of the circulation of the blood, and the publishing to the world the great principles of the Bacionian philosophy, together with the more general diffusion of the doctrines of the Reformation, gave new and increased energy and extension to thought, science, medicine, and the arts of civilized life, during the period included between the last half of the fifteenth and near the close of the seventeenth century.

8. That still another and brighter era dawned upon the world in the last half of the eighteenth century, in ascertaining the identity of the electric fluid and lightning—the discovery of galvanism of carbonic acid gas, of oxygen gas, and the consequent development of the broad field of pneumatic chemistry, and *pari passu* with these, the increased diffusion of Christian principles and benevolence as exhibited in the Bible, and other kindred societies—hospitals, almshouses. asylums and other numerous charitable institutions—very much of the efficiency of which depends upon the science, the time, the sacrifice and exposure of the medical profession.

9. That the scientific and other general developments of the last fifty years have been rapid above all human conception; every department and enterprise feels the mighty impulse, not an ocean or continent escapes the scrutiny of the age. The long standing problem proposed by Columbus, of a northwest passage, is solved. Air, steam, and electricity yield subserviency to the will of man and execute his pleasure. Time and space are measurably annihilated. Remote parts of the country are brought into neighborhood. Intercommunication, hitherto so difficult between distant nations, is facilitated; the benign principles of the Gospel wend their way; and hence the indication of the early universal diffusion of light and knowledge, and the final mental emancipation of our race.

10. That in elaborating the world's destiny, religion is the great and all pervading element, and that even now it exerts a controlling or modifying influence, commanding the homage and respect, either directly or indirectly, of all classes and professions.

11. That this influence is felt and receives the sanction and acknowledgment not only of the profession, as evidenced in our code of ethics, but specially also as witnessed in lectures, professors and presidents in their addresses, and other official acts in our colleges and schools of medicine.

12. That this moral influence as a necessary sequence in professional intercourse with the people and with each other, is exerted on man, complex in his nature, consisting of soul and body, and these reciprocal in their action and influence, and contingent in results here and hereafter, more or less upon professional intervention in the treatment of disease.

13. That hence we deduce inferentially, the solemn and responsible professional relation existing between the physician and his patients, and that in consonance both with the requirements of our code of ethics and the judgment of those high and honored in the profession, it is obligatory on the practitioner in grave disease, seasonably to take the initiatory demanded either for business arrangements, or leading to that consolation which religion can afford.

14. That the prudent and discreet inculcation of the truths of the Gospel and the method of man's redemption by a Mediator, instead of exerting an injurious effect upon bodily disease has often quite a contrary tendency, arresting the attention of the patient—leading to a different train of thought, and thus sensibly relieving anguish of mind and pain of body—begetting trust, confidence and joy and often ending in fatal cases in a peaceful and triumphant death.

15. That from the general scope of the subject, the compound nature of man, his eternity, accountability, religious propensities, intellectual susceptibility and the reciprocal action of body and mind in health and disease, the doctrine is educed of the paramount duty of the profession to their patients not only as regards the body in disease, but also the higher interests of the immortal spirit. And hence, also, the just claim of religion, the great anæsthetic of the immortal mind, to be considered an element in medicine or the healing art.

The foregoing propositions are enforced by such considerations and reflections as are suggested in support of the general subject.

NEW YORK. JAMES L. PHELPS.

The document was referred to a Special Committee, to be appointed by the Chair.

The President named Drs. ATLEE, SAYRE and MARCH, to serve on the committee.

A motion was now made to proceed to the regular business, which was carried.

Dr. EVE moved that the matter relating to the report of the Committee on Nomination, and the blank occasioned by the amendment offered by Dr. REYBURN, which was adopted in Committee of the Whole, be referred back to the Nominating Committee for the purpose of filling up the blank, which was lost.

The question then came up upon adopting the original report of the Committee of Nomination. A discussion arose, participated in by Drs. BRECKENRIDGE, ATLEE, SAYRE STORER, McDOWELL, WHITE, and others. It was in character much the same as that of the morning, becoming very animated, and at times personal feeling and sectional jealousy were evinced.

The original report of the Committee was at length adopted.

After the vote was announced the delegation from Philadelphia, through Dr. La Roche, announced that they would take the responsibility of tendering the resignation of Dr. Condie, of Philadelphia, Treasurer of the Association. After some little discussion the resignation of Dr. Condie was accepted.

Dr. West, of Philadelphia, one of the Secretaries, then tendered his resignation, and the question being upon accepting it it was lost.

Dr. Breckinridge, of Kentucky, then offered the following resolution, which was carried:

Resolved, That hereafter the majority of the Committee on Publication shall be selected from the physicians of that city in which the Association may annually meet.

A vote of thanks was then unanimously returned to Dr. Condie for the able, zealous and impartial manner with which he had discharged his duties as Treasurer.

A resolution was reported to amend the Constitution, which provides that its annual meetings shall be held on the first Monday in May, and substitute the second Monday. The resolution, under the rule, lies over for a year.

Dr. W. H. Byford offered a resolution of thanks to Dr. Pinckney, of the United States Navy, for the able address delivered before the Association on the first day of its session, which was unanimously adopted.

Dr. Atlee offered a resolution tendering the thanks of the Association, and of the individual members, to the citizens of St. Louis for their hospitality and kindness; also, to the Directors of the various Railroads and officers of steamboats, for the generous manner in which they have tendered their kind offices, which was adopted.

Dr. White moved that a vote of thanks be extended to the late Publishing Committee for their best endeavors to serve the Association, which was unanimously adopted.

A resolution offered by Dr. W. W. Hitt, about alcoholic drinks, was adopted and referred to the Committee on Nomination.

A resolution offered by Dr. C. B. Hughes, relating to speciality practice in Surgery, was on motion laid on the table.

Dr. White, from the Nominating Committee, reported to the Association the name of Dr. Blatchford, of New York, as Treasurer, in place of Dr. Condie, resigned.

Dr. Blatchford declined acting in that capacity, and the Committee subsequently reported the name of Dr. Wood, of New York.

They also reported a special committee on Epidemics for the States of Virginia and North Carolina, with Dr. HASKINS as chairman; and also, the resolution relative to alcoholic drinks was reported back by them, referring it to a special committee, consisting of Dr. MUSSEY.

Dr. W. S. EDGAR offered a resolution in regard to the compounding of medicine, and recommending apothecaries to use different colored paper in putting up poisonous drugs, with an appropriate stamp upon it, in contradistinction to other medicines.

Dr. BANE, of Illinois, was elected a permanent member.

A letter from Dr. ENGELMAN, of St. Louis, was read, resigning his situation as chairman on one of the special committees, but the Association refused to accept it.

The following resolution, offered by Dr. J. B. LINDSLEY, was, on motion, laid on the table:

Resolved, That the too prevalent practice of Professors in Medical Colleges of recommending their own writings and editings as text books for their students, is, in the opinion of this Association a serious evil, trammeling as it does, the student in his choice of books, and promoting the publication and circulation of works of inferior merit.

A vote of thanks was returned to Dr. HOOKER, Treasurer, *pro. tem.*

Dr. GROSS informed the Association that the second volume of the work of the late PROF. DRAKE, of Cincinnati, was now in the press at Philadelphia, and would be issued early in the present summer. The second volume he said was on Practical Medicine, and will be entirely independent of the first.

Dr. MCPHEETERS announced to the Association that omnibuses would be in attendance at the Hall next morning at nine o'clock, to convey the members to the depot of the Pacific Railroad, in pursuance of the invitation tendered to them by the Directors.

On motion the Association then adjourned *sine die.*

In the evening the members sat down to a magnificent entertainment provided by the physicians of St. Louis, which "passed off in a very orderly and satisfactory manner," with toasts, speeches, poems, stories, and songs, affording to all present high gratification.

AMERICAN MEDICAL LITERATURE.

The subject of American medical books was two or three times brought up at the late meeting of the Medical Association in St. Louis. One gentleman offered a resolution condemning the practice of professors recommending as text books their own productions; but the resolution was not adopted. Another resolution was adopted, appointing a committee to inquire into the causes which impede the growth of our medical literature, and report to the Association at its next meeting. The subject is one of much interest. No man actuated by proper feelings can be indifferent to the literary reputation of his country. It cannot be denied that for a long time we were in a state of literary vassalage to England and France altogether unworthy of our national character, and in the estimation of very many we are still far from having attained a position of independence, in this respect, becoming us as a people. No one can have forgotten the taunt of the Editor of the Edinburgh Review, put forth a few years ago—"*Who reads an American book?*" Such a question would hardly be asked by any British reviewer now, but we think the time has come when we should rely more upon ourselves and look less abroad for our professional literature, and should certainly exhibit much less sensitiveness than we have shown to the strictures of foreign critics. We incline to no embargoes; we would impose no restrictions upon the traffic in books, and we thank our brethren of other countries for every valuable emanation from their presses. Knowledge ought to be free, and we cordially welcome every good book that comes to our shores whatever be its birth-place. But are we just to ourselves in remaining so dependent upon the profession of other countries? Such a state of things must exist in the infancy of a people, but we have passed beyond that stage, and it does seem to us that we have arrived at a period when we ought to declare our literary independence and set up for ourselves.

There is everything in the success of our native medical authors to incite to literary effort. Those books which have been written by American physicians have generally met with great favor.

The writings of Dr. BENJAMIN RUSH had a wide popularity, and were as much read by his countrymen as the productions of any cotemporary European writer. EBERLE was as successful as any medical author of his day. Edition after edition of his works was called for during his lifetime, and at least one has been published since his death. The first work published by CHAPMAN, his Therapeutics, attracted much attention and was generally read. DUNGLISON has been eminently successful as an author, and his colleague, PROF. MEIGS, has been hardly less so. Few books have had a more steady sale, or been more universally approved by the profession than the "Dispensatory" of WOOD & BACHE, and a later production of the former has taken its rank among the standard works on the practice of medicine. PROF. DICKSON, of Charleston, has produced works which have given him an enviable reputation, and are to be found widely distributed through the libraries of his brethren. Everybody knows how wide was the circulation of WISTAR'S Anatomy. DORSEY'S Surgery soon made its way into most of the medical libraries in the country, and GIBSON'S Surgery has passed through numerous editions. The writings of BARTLETT have met with universal favor, and have been profitable both to the author and his publishers. HORNER, GODMAN, WARREN, the BECKS, and DEWEES have conferred honor upon their country by their labors, and an ample share of praise has been awarded to the productions of their pens. The great work of Dr. DRAKE, prepared at the expense of so much time and labor, was hailed by his brethren at home as a production which did honor to American medicine, and has received the highest commendation of European critics. Our colleague and friend, PROF. MILLER, has abundant reason to be satisfied with his success as an author, few works on obstetrics having been more applauded than his Human Parturition. The success of another colleague has been great enough to satisfy any ordinary ambition. While CRAIGIE'S Pathological Anatomy was nearly twenty years reaching a second edition, and ANDRAL'S, we believe, has not yet attained to that stage, a second edition of the Pathological Anatomy of our friend, PROF. GROSS, was called for in less than six years after the appearance of the first.

All in the course of these writers has not run smooth; there has

been enough of censure to take off the curse resting upon him of whom "all speak well." For example, a very small, and very malignant, and somewhat disappointed critic, has lately spoken of the lamented DRAKE as "a babbling historiographer who had spent most of his life in running about the country, collecting its medical gossipry." But these small, malignant critics, prompted as they are by personal spite, injure none but themselves. The profession turns contemptuously upon them and demands, what have they done for the medical literature of their country? Their voices are very feeble amid the general applause. The past and the future are alike full of encouragement and promise for American medical writers.

As to the objection urged against the recommendation by professors of their own works as text-books, we confess that we do not perceive its force. Nothing seems to us more natural than that the book of the teacher should be the one used as a text-book by his pupils. If his book is not worth reading, it may be doubted whether his lectures are worth hearing. In Germany, we believe, it is the custom of professors to prepare "hand-books" for their students, and we never heard the practice condemned as evincing a want of modesty in those learned men.

UNIVERSITY OF LOUISVILLE.

IT was announced by us, some months ago, that PROF. SILLIMAN had resigned the chair of *Medical Chemistry and Toxicology* in the University of Louisville. We have the pleasure to inform our readers that the vacancy thus created has been filled by the election of J. LAWRENCE SMITH, M. D., formerly of Charleston, South Carolina, and lately Professor of Chemistry in the University of Virginia. PROF. SMITH is extensively known as a successful cultivator of chemical science. His researches, both in chemistry and mineralogy, have been numerous and important. Although now devoted to chemistry as a pursuit, he was regularly educated for the profession of medicine, his acquaintance with which will enable him to point out to his students the many intimate relations of chemistry to medical science. It is his intention to settle permanently in this city where, before he was elected to this chair in

the University, he had erected a laboratory for the purpose of pursuing his scientific investigations. PROF. SMITH, we have no doubt, will prove an acceptable teacher, while as a practical, working chemist, and gentleman of varied, profound science, he is an acquisition to the city.

From PROF. FLINT's letter, which forms an interesting part of our present number, it will be seen that this gentleman is pursuing his medical observations with great industry and zeal in the hospitals of Paris. He writes to his colleagues in the University, that he will have it in his power to make valuable additions to the Anatomical Museum from the rich collections of the French capital. He will return to Louisville about the beginning of October.

TENACITY OF LIFE IN THE INFANT.

THE following case illustrative of the remarkable tenacity of life in a human infant, is communicated to us by Dr. JOHN INABNIT, of Oak Grove, Mississippi:—

"A negro girl, about sixteen years of age, near this place, was delivered of a child on the night of the 12th of May; the child was born in the woods, and the mother being alone threw it away. It remained in this situation until the morning of the 14th, perfectly naked, exposed to the sun during the day and to a flood of rain at night. When found it was as cold as a fish, and so remained for several hours. The time was not less than thirty-six hours during which it lay naked, without food in the open air, and yet it is still alive at the end of a fortnight, and I believe, doing well."

HEALTH OF THE CITY.

LOUISVILLE continues healthy, for the season, which has been wet, and is now excessively hot. If any cases of cholera have originated in the city, they have thus far been few and scattering. Dysentery prevails to some extent, with diarrhea, cholera morbus, and cholera infantum. There is plainly a tendency to bowel complaints, as might be expected in such weather. Cholera is reported to have appeared in many places, in this State and in Tennessee, but we do not hear that it is anywhere committing such ravages as attended the march of the disease in former years.

Record of Medical Science.

HEADACHE AND ITS VARIETIES.—BY PATRICK J. MURPHY, M. D. —How often in practice do we feel the truth of an observation of the late Dr. Graves, that "no cases prove more troublesome to the practitioner, and for none is he more frequently consulted, than the headaches of young women." It is now some years since I read a paper before one of our medical societies, giving a slight sketch of the symptoms and treatment of the more prevalent forms. Daily observation has confirmed my belief that the doctrine then advanced is in the main correct. As an abstract of the paper appeared in the columns of one of our weekly periodicals, and as it was considered worthy of being re-published in Ranking's *Half-yearly Abstract*, I should not have been tempted to enlarge upon the subject, but for a remarkable sentence in the second volume of Graves' "Clinical Lectures on the Practice of Medicine," p. 552, where, speaking of dry cupping, he observes:—"I have in a previous lecture referred to its effects on the headaches of young ladies. Now these are varied and numerous beyond conception, generally connected with some menstrual irregularity and derangement of the intestinal canal, and forming a class of disorders which would require a good monograph, more than any other I know of. Many practitioners get into disgrace with ladies on this account, and, as a natural consequence, with the community in general."

The cause and seat of the more ordinary headaches, especially in young ladies, are, according to my experience, by no means so obscure, and it tends to confirm the correctness of my views, that the treatment adopted has seldom failed to afford relief.

Headache is one of those complaints for which we are almost daily consulted. If an aged person be the sufferer, the patient becomes alarmed, and the practitioner is kept in a continual state of anxiety while it exists; and if it arises in childhood, and is persistent, it is dreaded as an insidious symptom of hydrencephalus. The discrimination of one form from another seems still difficult, and the treatment is consequently confused, unsatisfactory, and therefore in many cases injurious. With our present knowledge of anatomy and physiology, the pathology of headache should be more exact. The fact is, practitioners have been misled by the multitudinous causes to which headache has been attributed; and hence if there be a temporary functional derangement of a viscus

co-existing with headache, the disorder of the head is believed to be sympathetic of the viscus, and the treatment, to use the mildest term, is inefficacious. That there are varieties of headache, it is true; but that those which we are called upon usually to relieve are much varied, is not the fact. In nine cases out of ten the extraordinary and rare cases of headache are easily recognised. Take, for example, the headache originating from fungus hæmatodes, or from scrofulous tubercle in the brain; in the former, incipient amaurosis rouses our suspicion; in the latter, other scrofulous affections always co-exist; and in the last case of the kind I saw, phthisis had already commenced.

We have several classifications of headache. The best is that which divides them into the bilious, the nervous, the rheumatic, the gouty, &c. Yet how defective is the classification? I have never yet met a physician who could define what bilious meant, and least of all a bilious headache, although the term is stereotyped. To lessen this confusion, and to check the unphilosophical mode of employing medical terms which convey only confused ideas, is my apology for attempting a classification, and this classification shall include only the ordinary forms of headaches, for the extraordinary forms neither admit nor require to be classified. The classification which follows is grounded solely on experience, and is limited to fire varieties:—the anæmic, the congestive, the neuralgic, the rheumatic, and the periosteal.

The first two have their source in derangement of the cerebral circulation, and hence the seat is intra-cranial; the other three are extra-cranial. To speak more plainly, two arise from disordered circulation, one from the nerves of the scalp, one from the fibrous structure, and one from the pericranium, which is also a fibrous structure.

The most prevalent form of these headaches, at least in London, is the anæmic, or that which is caused by a deficiency of blood within the cranium. The next, congestive; then the neuralgic, or that identical with spinal irritation; next, the rheumatic, very seldom—a solitary symptom; and lastly the periosteal, almost always traceable to a mercurial course, or to an injury. To this simple classification we may in most cases restrict our attention; and as the three last have peculiar characters revealing themselves on the slightest examination, the whole difficulty of diagnosis is confined, strange as the assertion may sound, to headaches arising from deficiency or excess of blood within the cranium. Circumstances do however occur, which render a diagnosis difficult. The neuralgic may co-exist with the anæmic, or incipient fever will change the anæmic form of this day to the congestive of the next. The latter combination, or rather superseding, is not rare in young ladies, the anæmic form being so common in weak constitutions, and debility predisposing so much to attacks of feverish

colds. The doubt, however, is removed in a few days, when the fever declares itself, a correct diagnosis is then obtained, which almost always points out the successful treatment. The periosteal or rheumatic may co-exist with the congestive, and I once saw a puzzling case where the periosteal headache being severe and well-defined, there was also present the anæmic form, the result of profuse menstruation and leucorrhæa. The anemic headache, being the most common and persistent, should be first described.

The Anæmic Headache,

Or headache from deficiency of blood, is the headache of debility. It is an invariable attendant on chlorosis. It is the most common form to which young growing females are subject. Debility arises from various causes:—loss of blood, whether by the lancet, epistaxis, hæmorrhoids, uterine hæmorrhage, &c.; leucorrhœa, prolonged lactation, chronic diarrhœa, profuse perspirations, over-exertions, innutritious diet. It is not unfrequent in young men who indulge too freely in smoking tobacco, nor is it, I regret to say, uncommon in both sexes from masturbation. Debility, the consequence of any of these causes, is attended with headache, and this being frequently the most prominent and distressing symptom, we are consulted for this alone, and any doubts as to the true nature of the headache are easily removed, for, on inquiry we find it co-exists with many, and even occasionally all, of the following symytoms:—

Symptoms.—The pain or rather ache is referred to the forehead and vertex, in a line more or less with the sagittal suture; it is usually described as a swimming or vertigo; it is relieved in the recumbent position, and increased by remaining long in the upright posture, or by any additional cause of weakness; no matter how severe it may be before bed-hour, the patient is tolerably free in the morning, just previous to getting out of bed; if the weakness be excessive, there is, on suddenly rising, a tendency to and sometimes actual syncope, or a temporary giddiness compels the sufferer to cling to the bed-post for support, and, as might be surmised, it is occasionally followed by nausea, but actual vomiting is very rare.

Vision also suffers, motes or muscæ volitantes dim the sight, and towards night, the feebleness having been increased from the exertions of the day, to some persons, while reading, the letters appear to be so intermingled that the occupation must be deferred for some moments. Complete amaurosis, preceded by headache, has followed the debility of prolonged lactation or hæmorrhage; the face is generally pale, but not necessarily so; the eyes are sunk; there is the dark semicircle beneath the lids; the surface chilly; the feet cold, and, as a consequence, occasional *cramps* in the lower extremities during the night; in very delicate females

there is slight œdema of the ankles, for the shoe which fitted easily in the morning is felt too tight at night, if there has been much standing; palpitation of the heart, and breathlessness and faintings on slight exertion; disturbed sleep, attended with nightmare or unpleasant dreams, varied by profound sleep of eight or twelve hours' duration; sinking at the epigastrium; sudden desire for food, which, if not quickly appeased, soon ceases, leaving a languidness; bowels rather constipated; fits of sighing, gaping, or yawning; an unaccountable depression of spirits, which, in young females, is attended with involuntary shedding of tears; disinclination for exertion; easily exhausted by conversation or reading aloud; pulse feeble; lips pallid; tongue flabby, bloodless, expanded, and indented at its edges by the teeth; mammæ cold; nothing positive can be said with regard to menstruation; in chlorosis it is scanty or altogether absent, but menstruation once established, the headache and other symptoms are more often caused by menorrhagia and profuse leucorrhœa; if copious perspirations take place, the debility is more marked, but cramps and a few other symptoms are not then present. In very severe cases there is the venous murmur in the neck, or "*bruit de diable*," œdema of the ankles, and sometimes anasarca of the legs. The *bruit de soufflet* may be sought for when palpitations are excessive.

Numerous and apparently antagonistic as these symptoms are, we occasionally meet them combined, and more or less modified. Inquiring into their origin, excluding the cause of the debility, we find them traceable to the central organ of the circulation. This muscle, in common with the voluntary muscles, is enfeebled from similar causes; when enfeebled it is unable to propel the blood as usual, it becomes what I should call a *flaccid heart*, or, as termed by Dupuytren, to whom this combination of symptoms was familiar, "*rélachement du cœur.*"

Admitting the doctrine that this form of headache and its conjoined symptoms are the consequences of the contractile power of the heart being weakened, this explanation is not difficult.

Headache.—This variety is known as cephalæa, vertigo, megrim or giddiness. Its history shows that it arises from a deficiency of blood within the cranium. It is relieved in the recumbent, and increased in the erect posture. The sensation may be most annoying on retiring to rest, yet on awaking in the morning it is either altogether gone or very much less. Rest, generous diet, and stimulants oppose its encroachments; exertion, diet small in quantity and bad in quality, great loss of the fluids from diarrhœa, perspiration, lactation, epistaxis or leucorrhœa, add to its intensity. The mind even may become unsound, for it is not uncommon to meet with mothers in the lower classes of life, who, compelled by necessity to toil all day, deprived of rest at night by the cries of

their infants, unable to obtain sufficient nourishment, and hourly drained by lactation, whose symptoms, beginning with this variety of headache, are soon preyed upon by low spirits, succeeded by the deepest melancholy; and, if now closely questioned, they will confess they are continually apprehensive of imbruing their hands in the blood of that very offspring for whose welfare they have sapped the foundations of body and of mind. The records of the daily papers unfortunately too well testify that in many pitiable cases I have not overcolored the picture. A suicidal tendency is also an attendant idea in other extreme cases. What an intense headache follows uterine hæmorrhage! the slightest noise is unendurable, and the head cannot be raised from the pillow without inducing syncope.

Dimness of Vision, a symptom seldom absent in cases even moderately advanced, as it occurs occasionally only, seldom continues more than a few seconds, and is not very annoying; it will not be alluded to by the patient unless inquired after by the physician. When the headache is very severe, muscæ volitantes are noticed. It is identical with that temporary loss of vision preceding syncope. If the cause be not removed, functional amaurosis may follow, which, if treated by depletives, might be permanent.

Countenance, lips, and tongue pale.—No proofs are required that paleness in parts naturally red must arise from a deficiency of blood only.

The sunken eye and dark semi-circle beneath the eyelids are well known to denote a languid circulation, as well as some degree of emaciation.

Coldness of the extremities, surface of body chilly.—These attendant symptoms, which are always present, corroborate the idea, that in the central organ of circulation resides the primary cause of the headache, and the other symptoms already enumerated. Fear and anxiety depress the action of the heart, and chill the surface of the body. The cold bath, which lessens so speedily the impulse of the heart's action, if prolonged would rapidly abstract caloric from the body, and check its motions for ever. Cool the cutaneous surface, and you lessen the beats of the heart; lessen the beats of the heart by a mental emotion, or by digitalis, and you cool the cutaneous surface. Reverse the medal, and we discover that whatever quickens the circulation diffuses warmth over the surface.

Palpitation of the heart; feeble pulse; dyspnœa on slight exertion.—Palpitation is either organic or functional. If the former it is persistent, the pulse is strong and incompressible, and the heart beats with such force against the parietes of the chest as to be sensibly felt by the hand or ear when placed over the cardiac region. These symptoms are reversed when the palpitation is functional and from mere weakness; the pulse is languid and com-

pressible; the heart is quiet during repose, and disturbed only from mental excitement or physical exertion; the impetus is feeble and diffused; and if the person lie in the recumbent position, and the heart be thus withdrawn from immediate contact with the walls of the chest, its beats are scarcely perceptible.

Both the palpitation and dyspnœa are the effects of blood being poured more rapidly into the cavities than the heart in its then weakened state is able to expel. Of course we all know that muscular exertion forces blood to the heart, and therefore there is a demand on the organ for increased action termed palpitation, and not being able to empty its cavities completely and rapidly enough, there is an impediment to the entrance of the blood from the pulmonary veins and consequent pulmonary congestion which induce dyspnœa.

Cramps, which are very usual symptoms, have never been suspected to depend on a flaccid heart. A cramp arises when *there is an impediment to the circulation of the blood in a vein which traverses the substance of a muscle.* The heart therefore, when flaccid, not being able to keep up an active circulation, is a cause of cramp. The enlarged uterus, by pressing on the iliac veins, causes cramps in the same way. The severe pain of cramp is owing to the pressure which the muscular nerves endure. Cramps from a flaccid heart are only felt in bed, when the contractions of the muscles of the leg have ceased. The involuntary action of the muscle, although painful, is salutary, for muscular contractions are a great aid to the circulation. The cramps of cholera are also owing to the stagnation of the blood in the muscular veins.

Disturbed sleep; dreams.—If during sleep the free action of the heart be impeded, the sleep is broken, disturbed, and attended with unpleasant dreams. A person with a flaccid heart lying asleep on his left side, and thus checking the motion of the ribs, is almost certain to be annoyed with night-mare or unpleasant dreams. It is singular and inexplicable why these dreams should be always of a distressing nature; tumbling down, fire, drowning, or thieves, are the usual subjects. In organic diseases, sleep can scarcely be indulged in, unless in a semi-recumbent position, without the intrusion of these unpleasant dreams. We may therefore conclude, that where headache co-exists with disturbed sleep and disagreeable dreams, we have to combat with a flaccid heart; nor can I recal to memory one well-marked case of chlorosis where those dreams were not acknowledged.

Sighing, gaping, and yawning, are closely related to each other; they are natural and necessary acts to relieve præcordial oppression. If the attention be engaged, and the heart not acting strongly, the pulmonary veins are over-distended, and sighing—which is merely taking a deep breath, and calling the diaphragm

into full action—becomes necessary to expand the pulmonary tissue.

Sinking of the epigastrium is one of the most constant symptoms. This symptom is difficult of explanation, but it seems analogous to the sensation of hunger. Certain it is that food relieves and abstinence increases it. The appetite is craving; but with some persons, although there is great desire for food, yet hunger is easily appeased; and if there be the slightest over-indulgence, distention, tympanitis, and borborygmi, follow. The tympanitis I have usually considered as the result of the muscular coats of the intestines and stomach partaking of the general weakness of the voluntary muscles, which thus yield readily to the gaseous pressure. The muscles, both organic and inorganic, are enfeebled. There is a wish for stimulants even by young females, and also by females who display almost every symptom of chronic gastritis, such as nausea, vomiting, and pyrosis. If, therefore, there be no pain on pressing the epigastrium, and the appetite and wish for stimulants are present, it would be mistaken practice to deplete or give hydrocyanic acid or other sedatives.

Œdema of the ankles.—Many diseases produce this symptom, especially those which drain the system. In prolonged chlorosis it is not infrequent, and denotes a flaccid heart unable to exhaust the veins of their blood. To the same cause must be attributed this symptom co-existing with anæmic headache. It does not appear early, sometimes it is denied, although it will be admitted that towards night the shoes are too tight for the feet. In the delicate and relaxed female the plantar fascia readily yields to the effused fluid; but in more advanced age, and especially in those of once rigid fibre, I have been consulted for this symptom alone in the incipient stage; for then there is severe pain along the sole of the foot, which subsides if the recumbent position be adopted for a few hours, returns when the upright posture is re assumed, and, if not properly treated, is not relieved until œdema explains the cause. In connexion with œdema of the ankles may be also mentioned enlargements of the liver and spleen. The increased volume of the liver is a well known effect of organic affections of the heart, especially of adherent pericardium, but has not been noticed, as far as my recollection goes, as a very common effect of a flaccid heart. In debilitated women, who have had a family, it is by no means uncommon to be consulted for a pain in the right hypochondrium; and if the side be examined while she stands, the practitioner is surprised to discover the liver two or three inches below its level. If, as is too often the case, it is prescribed for as chronic hepatitis, the constitution will be injured; for it is merely venous congestion, and the appropriate remedies are chalybeates and quinine.

Menstruation. if absent or deficient, will guide the physician

when his patient is a female, and warn him against depletion; but on the other hand, a frequent cause of headache is traceable to the debility arising from profuse menstruation and leucorrhœa. The profession are certainly indebted to Dr. Bennet for first pointing out to the practitioners of this country the intimate connexion there is between these symptoms and ulceration of the cervix uteri. But this ulceration or abrasion—for in many cases it is nothing more—must be curable by other means as well as by the application of nitrate of silver, as many unmarried females are restored to health by injections of acetate of zinc and the exhibition of sulphate of quinine acidulated. When the heart becomes flaccid from innutritious diet or over-exertion, there is not sufficient blood to spare for menstruation; and, on the other hand, profuse uterine secretions weaken equally the voluntary and involuntary muscles.

Unfortunately a great difficulty of diagnosis exists in our profession when co-existing symptoms arise from different diseases. The anæmic headache may exist for years, and then have the neuralgic superadded, but this is not of so much practical importance, as the remedies for the one form do not make the other worse; on the other hand a delicate female, long suffering from anæmia and its headache, is often attacked with fever, and the anæmic is thus replaced by the congestive headache. If stimulants be now given, serious mischief may be the consequence, while, on the contrary, a practitioner who sees her for the first time may deplete too largely and produce a tedious convalescence. These mistakes can occur only on the invasion of the fever, for in a few days, the thirst, heat of skin, and loaded tongue, point out clearly what is to be contended with. Cupping or leeching will relieve the head for a few hours, but if the fever be ataxic a degree of prostration may be induced from which the patient can never be roused. I have never seen the anæmic and rheumatic headache combined; the combination is rare, but there is no reason why such may not occur.

Treatment.—As debility not only attends, but is often the sole cause of this form of headache, the treatment must, of course be directed in accordance with this view. The diet is most important and the proper kind at once suggests itself; it should be nutritious, and as the muscular coats of the stomach and intestinal tube have lost their tone, or, more correctly speaking, have their contractile power weakened, common sense points that it should be easy of digestion. Animal food is indispensable; it may be taken twice a day. Mutton is to be preferred. Beef, unless stewed, lies heavy on the stomach of weak people. The lean of roast pork may be permitted; it is a variety, and digestible. The flesh of young animals is neither as nourishing nor digestible as those of mature age. Wild fowl, hare, or rabit, seldom disagree. Roast meat contains more nutritious matter than boiled, but either may be

taken according to the fancy of the patient. The richest soups and strongest jellies are in every way inferior to the meat from which they are produced; even in a healthy stomach they cause flatulence and distension, and, *a fortiori*, the weak stomach cannot escape. The more solid fish, such as sole, turbot, &c., may be permitted. Stewed eels are wholesome and agreeable. Oysters fresh, uncooked, and cut into three or four portions, never disagree. Vegetables, unless potatoes, should be cautiously used. Bread should be stale, nothing is more indigestible than fresh bread or buttered toast. An excellent evening meal can be made with tea and rusks. Of fruits, strawberries, raspberries, gooseberries, pears, peaches, and plums are agreeable and aperient; uncooked apples usually disagree. Nuts, almonds, and raisins frequently give rise to painful feelings in the stomach. There is a craving for stimulants, which ought to be indulged in moderation. Ale or porter may be allowed at dinner and supper; perhaps porter is preferable, as it usually contains a chalybeate. Bitter ale is useless. A glass of wine between breakfast and luncheon, with a biscuit, is always found grateful and invigorating. To alcoholic drinks the objections are self-evident, especially when young females are the patients. Very delicate females are much benefited by breakfasting in bed. The meals should be light, and repeated whenever the faintness or sinking of the stomach is approaching. Many cases, however, will occur, more particularly in young men, where no directions for diet will be needed, almost all kinds of food being digestible.

All causes of exhaustion should be guarded against. There is nothing more injurious to a flaccid heart than smoking, many cases being traceable to this cause alone.

The medicine on which the greatest reliance may be placed is iron. Fortunately, this remedy can be exhibited in various forms and combinations. The formulas in the Pharmacopœia are as numerous as those of mercury. Griffith's mixture is an excellent mode of prescribing iron, but as the myrrh is unpalatable and useless, it may be omitted; or a form for which we are indebted to Mr. Donovan may be more advantageously substituted; it is as follows: pure sulphate of iron, one drachm; magnesia, ten grains; purified sugar, one ounce; rose or cinnamon water, eight ounces; mix. This is a scientific prescription; and if the iron be free from red oxide, the green color is preserved for eight or ten days. The magnesia neutralizes the sulphuric acid, and converts the sulphate into a protoxide. The sugar prevents decomposition, and it may be flavored with mint or peppermint water. In hospital practice it would be found most economical, and treacle might be used instead of sugar. In the hysterical female, infusion of valerian adds to its value; and if there be great sense of exhaustion, ammonia in combination is most beneficial. Persons will take

Pills who object to fluid medicines. The compound iron pill might be improved by using treacle and potash, which keep the pill soft; and my omitting the myrrh, which only adds to the size. If the cause of the debility be from leucorrhœa, preparations, or hæmorrhage, the tincture of sesquichloride of iron, in doses of fifteen drops, three times a day, will be the most certain form to employ at first. Young unmarried females, from about their twenty-second year, are very subject to a chronic gastritis, or rather irritable stomach; for these the best preparation is the carbonate of iron, with sugar, of the Edinburgh Pharmacopœia. If the appetite is bad, sulphate of quinine may be combined with iron. The occasional constipation, which is caused by the loss of tone, the sulphate of zinc, with small doses of sulphate of strychnia, relieves. In severe chlorosis, the crystallized citric acid aids the iron; and in scrofula, iodide of potash may be joined with the iron mixture. If there be a periodical neuralgia, the most effective form is the precipitate of carbonate of iron. In a severe case of chorea and anæmic headache, Fowler's solution of arsenic was combined with Donovan's mixture, and in fourteen days both diseases were relieved permanently. When there is a tendency to œdema, and there is any objection to the tartrate of iron and potash, a chalybeate in another form may be prescribed, and supertartrate of potash taken as common drink. The bowels should be kept gently open by an electuary of senna or the compound rhubarb pill. Friction over the cutaneous surface is very useful; in cold weather, the hands and feet ought to be well rubbed two or three times a day, to guard against the existence of chilblains, to which there is a great tendency in these constitutions. In a case of polypus growing from the fundus uteri, attended with profuse discharges and anasarca of the lower extremities, chalybeates kept the symptoms in check, and relieved the severe headache, until the protrusion of the tumor permitted the application of a ligature. Minute directions for the treatment, however, are not necessary, for the form of headache being ascertained, the proper remedies are obvious.—*London Lancet.*

THERAPEUTICAL RECORD.—*Angina Pectoris.*—M. Carriere (Bull. de Thérap., i. p. 7) has recommended the inhalation of chloroform, at the commencement of the paroxysm. Duchenne (Ibid.), in addition to this measure, has employed with advantage the "electro-cutaneous excitation" in the mammary region.

Cataract.—M. Lopez (Bull. Gén. de Thérap., 1854, ii. p. 89) has employed with advantage iodide of potassium taken internally, and vesication on the temples, in cataract. The treatment was

persevered in for five or six months, and in three cases out of four was productive of great benefit.

Chloroform.—Dr. Hardy (Dublin Journal, Nov.,) relates cases to show the efficacy of chloroform vapor directed upon the part in uterine affections. The vapor is applied by means of an instrument consisting of a metallic chamber, to one end of which a pipe with a valve is attached to the gum-elastic bottle. A sponge dipped in chloroform is placed in the metallic chamber, and then by pressing on the elastic bag, the vapor is expelled through the pipe. In cases of carcinoma and simple ulceration of the os uteri, this plan appears to be very efficacious; but it is useful also in pruritus pudendi, in sore nipples, and in other painful affections of the skin. M. Nelaton (Gaz. des Hôp. and Med. Times and Gazette, March 4) relates a case in which the vapor of chloroform directed (by Hardy's apparatus) upon an abscess in the axilla, produced complete insensibility, so that the entrance of the knife was unperceived.

Diabetes Melitus.—Dr. Basham (Lancet, Jan.) relates two cases treated by the permanganate of potash, in doses of ten grains three times daily; the amount of urine was very slightly diminished; the sugar was augmented; the other symptous were unaffected. Dr. Basham has employed alkaline treatment with advantage; the sulphate of soda was found to be useless. In one case opium was carefully administered, to the amount of three grains daily, but no striking effect was produced.

Fever, Continued.—Dr. Brinton recommends at the commencement of fever, an emetic of ipecacuanha (f℥j of the tincture); afterwards a stimulant plan is adopted, consisting of the administration of *small quantities* of brandy with water, beef, tea, &c. In great abdominal pain and tympanitis, turpentine stupes and enemas are used. (For the enema the following prescription is given:—Spirits of turpentine, minims xxx; tincture of catechu, ʒij; tincture of opium, minims xv; decoction of starch, ℥ij.) The rate of mortality was 10-4 per cent.

Fever, Intermittent.—Dr. Harting (Schmidt's Jahrb., 1853, ix.) has employed quinoidine with alcohol and sulphuric ether in ague, and, from twelve years' experience, states that it is superior to common quinine. He considers the quinoidine to be an amorphous quinine, (an opinion which has been strongly opposed by Muller.) Dr. Castiglioni (Ibid.) has used the tannate of cinchona; it requires to be given in larger doses than quinine, but is much less expensive.

Fever, Typhoid.—M. Vrancken has recommended in typhoid fever, ablutions with vinegar and water. M. Van Dromme (Rev. Med. Chir., Jan. 1854,) has employed this treatment largely, and with great success. He uses one part of vinegar to three of water, applied with a sponge over the whole body night and morning.

The diet is very low; pure or slightly acidulated water is permitted to be drunk *ad libitum*. Of twenty cases treated in this manner, one died. M. Vrancken also employed the acetate of ammonia internally; but this is regarded as useless by M. Van Dromme. Chomel has also recommended the vinegar ablutions. M. Mazade (Rev. Med. Chir., Feb., p. 95, et Rev. du Midi.) has employed the sulphate of quinine, in doses of 15½ grains daily, in seventy-one cases of typhoid fever, and comes to the following conclusions:—That this remedy is eminently useful when the fever assumes a remittent form; that it is also useful, but less so, when there are less regular remissions; that it is seldom useful, and often hurtful, in typhoid fever of continued type. M. Dupré (same journal) thinks that quinine is useful in continued typhoid fever, when of very adynamic type.

Gonorrhœa.—Dr. Boinet (L'Un. Méd., Sept.,) speaks highly of the effect of tincture of iodine when applied to the mucous membrane of the vagina in the gonorrhœa of women; a *single* application was sometimes sufficient. At the same time a solution of equal parts of tincture of iodine and water was injected into the urethra, but was not allowed to penetrate into the bladder. Dr. Boinet has employed the local application of iodine in inflammations and ulcerations of other mucous membranes, and with great success.

Gout.—Dr Goolden (Med. Times and Gaz., Nov.) uses with good effect, as a local application, spirits of wine. The relief to the pain is said to be sometimes very great. In the same journal the utility of an old remedy, the carbonate of soda, as a local application in gout and rheumatism, is referred to. A drachm of the carbonate is mixed with a hot bread poultice, and applied over the joint.

Lead Poisoning.—Dr. Goolden (Lancet, Dec.) records a case of lead-palsy successfully treated by the iodine of potassium and by galvinism. After the commencement of the treatment the urine was examined for lead by Dr. Gladstone, who believes that lead was present, though the examination was not perfectly decisive. Dr. J. R. Nicholson (Lancet, Jan.) relates a case of lead-colic and palsy successfully treated by iodide of potassium and galvanism. The urine was examined for lead before treatment, without any being detected; during treatment, however, the lead passed off abundantly in the urine.

Menorrhagia.—In cases of abundant menstrual flow without physical uterine lesion, Dr. Tanner speaks highly of the effect of tincture of cinnamon, in drachm doses in cinnamon water every six hours.

Neuralgia.—Periodic neuralgia of the face and head have lately been common in Paris, and have occasionally withstood the action of quinine. M. Aran (Bull. Gén. de Thér., 1854, ii. p. 84) has

employed in such cases the aconite in large doses. The preparation employed was the extract of the French Codex.

Perchloride of Iron.—As it is possible that some of our readers may be disposed to experiment with this substance, in the treatment of vascular tumors, we may remind them that the strength of the solutions used in France is regulated according to the degrees of Baumé's hydrometer. Thus, a solution is said to be 45° or 30°, and so on. Nom, a solution of 45° (Baumé), 50° Fahrenheit, is of the specific gravity 1-455; one of 36°=sp. gr. 1-26; one of 20°=sp. gr. 1-16; and one of 15°=sp. gr. 1-114. It has been shown, by M. Burin du Buisson, (Bull. Gen. de Thér. t. xlvi. p. 73), that to obtain a solution of 15°, it is not sufficient to add two parts of water to one of a solution at 45°, but it requires more than two and a half parts of water. He finds that 100 parts of the solution at 45° (sp. gr. 1-455), contain 43 parts of perchloride of iron, and 57 of water. Moreover, he states that a careful estimate of the strength of the several solutions, gives this general result—5 parts of the solution at 45° equals 10 parts at 30°, 15 parts at 20°, and 20 parts at 15°—so that any given quantity of the solution at 45° may be easily converted into either of the other strengths.

In the absence of our Surgical Report in this number, we may mention that some better success has attended the use of the perchloride of iron in the treatment of aneurism, since the introduction of the question, in November last, at the Academy of Medicine in Paris. It was then stated by M. Malgaigne, that out of 11 cases, 4 had proved fatal, and 5 or 6 had failed. A successful case, however, was then mentioned, in which M. Valette had cured a false aneurism of the brachial artery by injecting a larger quantity of solution at a higher strength than advised by M. Pravaz. He used fifteen drops at a strength of 30° Baumé, and was careful to compress the artery, for some time, above and below the point of injection. The patient has since died of some other disease. The artery was obliterated; and the sac of the aneurism filled with firm clot containing particles of chloride of iron.

Experiments in the zygomatic, external plantar, and carotid arteries of the horse, have been made by MM. Debout and Leblanc, with success, and without any bad consequences. They employed at last, a solution at 15°, and insist on the necessity for temporary compression of the vessel. The perchloride solution has also been injected into varicose veins by M. Follin, and into a *venous* tumour (query erectile) by M. Giraldis, both with success. It has also been employed, by M. Thierry, externally upon varicose veins, and varicose ulcers, as well as in a case of lupus of the face, and in another of nævus. In all cases the results were good. Where the epidermis is entire, a blister is first applied. Finally, the solution has been applied to internal hæmorrhoids; and, with

complete success, by M. Miergues, in a case of fistula in and communicating with the bowels. We shall await further trials with this agent, and consider the subject again hereafter.

Phosphate of Lime.—M. Mouriè's (Compte-rendu de l'Acad., Jan.) states that in the French towns the food is deficient in phosphate of lime. He affirms this after examination of the food and of the urine of women; the ingestion and egestion of this substance are diminished by a fourth. He also affirms that in the milk of nursing women, fed on this diet, there is a great deficiency of phosphate of lime, and consequently the children born in the great cities are insufficiently nourished. He recommends, therefore, the administration of phosphate of lime, and in nursing women he has given it with benefit to the amount of ʒiii per diem. [M. Mouriè's conclusions appear to be based on an insufficient number of observations, but they accord with the researches of Beneke, (Zur Phys. und Path. des Phosphorsauren Kalks, Gött., 1850), who has also rendered extremely probable the relation of phosphate of lime to the formation of cells.]

Pityriasis Capitis.—Dr. May, (Lancet, Sept.) recommends a lotion of biborate of soda (ʒss.), camphor (ʒij.), and water (ʒxxxij.). Twice a week the scalp is gently wiped with a soft flannel saturated with the solution. M. Duplex (Lancet, Oct.) advises the nitrate of mercury ointment, mixed with a little olive oil, to make it more manageable. Mr. O'Connor (Lancet, Oct.), who has tried the biborate of soda without effect, recommends washing the head in cold water, and the administration, by the mouth, of the sesquicarbonate of soda in some bitter infusion. Mr. Wingar (Lancet, Oct.) speaks highly of the following lotion:—fresh sulphuret of potassium (ʒj), water (ʒiij); to be used daily.

Phthisis.—M. Piorry (Bull. Gén. ne Thér., 1854, ii. p. 86) has employed, in 31 cases of phthisis, inhalations of iodine. About thirty grains of iodine are placed in a large jar with a wide opening, and the patient places the mouth over the opening, and inhales deeply one or two hundred times in the twenty-four hours, or even more often than this. At other times a larger quantity of iodine is exposed in the room, so as to impregnate the atmosphere. M. Piorry declares that not only are the cough, expectoration, &c., improved, but that the signs on percussion (of which method M. Piorry is, as is well known, an ardent votary) also improve. The editor of the "Bull. de Thér." expresses doubts of the validity of these conclusions.

Pneumonia.—In old decrepit persons, in tuberculous subjects, in those who are suffering at the time from diarrhœa, Dr. Fielding (Schmidt's Jahrb., 1853–4, ix.) recommends acetate of lead (three to six grains) with digitalis and opium. Heusinger (Deutsche Klinik, 1853, xxiv.) has employed digitalis at the very commencement, or after one or two doses of tartar emetic. In twenty-four

to thirty hours the physiological effects of the digitalis appear—viz: weakness, purging, vomiting cold moist skin, slowness and intermission of the pulse, &c. When these symptoms appear, the pneumonic process is arrested, and in a few hours resolution commences. The digitalis is given as infusion, in moderate doses, every hour or every two hours. M. Aran (L'Union Médicale, September, et Bull. de Thérap.) has employed *veratrine* in inflammatory affections, in typhoid fever, in acute rheumatism, and especially in pneumonia. M. Aran had employed veratrine in rheumatism after the manner of Piedagnel and Trousseau (vide de Thérap. Record, July, 1853, p. 282), and being struck by the enormous decrease in the rapidity of the pulse (from July 112 to 64), determined to employ the medicine in pneumonia. Six cases are related. One died; the rest were rapidly cured. After 5, 10, or 15 milligrammes (one-fourteenth, one seventh, and two-sevenths of a grain) of veratrine given in divided doses, the general symptoms began to abate. The effect on the pulse was extremely marked; it fell in an extraordinary way. The number of respirations diminished; the action on the nervous system was marked by extreme debility, prostration, pallor of the face, &c. M. Aran, however, does not pronounce exclusively in favor of this treatment but would employ it in obstinate cases. He gives five milligrammes (one-quarter of a grain) every four or six hours the first day, and in gradually lessening quantity the three succeeding days.

Priapism.—Dr. Debont (Gaz. des Hôp., 1853, p. 61) calls attention to the efficacy of the tincture of hops, in priapism. The effect seems heightened by combining sugar with it.

Ptyalism.—Dr. Erpenbeck (Schmidt's Jahrb., 1853, p. ix.) relates a case of severe mercurial salivation arrested by the internal use of belladonna. The salivation returned when the remedy was discontinued, and was again checked by it.

Sciatica.—Mr. Hancock believes that most cases of sciatica are caused by pressure on the nerve within the pelvis, either by accumulation in cæcum and colon, or by tumors. He recommends croton oil internally to remove fæcal accumulations, in doses of half a drop combined with blue pill. Quinine is to be given after the croton oil has fully operated.

Spermatorrhœ.—Dr. Laroche (Bull. Gén. de Thér., 1854, II. p. 76) records a case of spermatorrhœa treated with success by digitalis, as recommended by Corvisart. The dose is one or two grains of the powder of the plant, gradually elevated to eight grains.

Spleen, Tumor of.—In a case of splenic tumor, Dr. Gurtrac (L'Un. Méd., 1853, No. 69) has employed the sulphate of manganese with good effect, in doses of one to one and a half grains twice a day, in the form of pill.

Strabismus.—Du Bois Reymond (Muller's Archiv. and Bull. Gén. de Thér. 1854, II. p. 95) recommends the *stereoscope* for the

cure of squinting. The principle is the same as in the case of the prismatic spectacles, advised by Mr. Spencer Wells.

Syphilis.—Dr. Heyfelder (Medical Times and Gazette, Oct.) has employed the bichromate of potash in secondary syphilis, with good effect. The dose is two-thirds of a grain daily for a few days and then the quantity is gradually increased to three and four grains, until altogether about 130 grains have been taken.

Tape-worm.—Dr. Mackinnon (Indian Annals of Med. Science, No. 1., p. 284) recommends a remedy called in Northern India the "Kameyla," and used as a vermifuge for dogs. He has given it in 16 cases, and finds it more useful than turpentine or kousso. The dose is two or three drachms, which purges rather copiously. The "Kameyla" is a powder attached to the fruit-capsule of an Euphorbiaceous plant, the "Rothera Tinctoria;" it is brushed off and collected when the fruit is dry; its price is moderate.

Ulcers.—In callous ulcers, Mr. Hainworth has successfully adopted the plan of paring away the ring of hard condensed cuticle which surrounds the old ulcer. The operation is painless, for the cuticle is sliced off without the cutis being wounded.

Vomiting.—MM. Clertan and Galante (Bull. Gén. de Thér., ii. p. 91) have employed, in cases of obstinate chronic vomiting which had resisted all other treatment, capsules containing sulphuric ether. In a case of apparently hysterical vomiting, which is related as evidence, ether taken in the ordinary way did no good, but the disengagement of the ether in the stomach was at once successful.—*Medico-Chirurgical Review.*

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